AN INVESTIGATION OF INTIMATE PARTNER VIOLENCE PERCEPTIONS IN NINE APPALACHIAN OHIO COUNTIES:
A HEALTH BELIEF MODEL APPROACH

A dissertation submitted to the
Kent State University College of Education, Health, and Human Services
in partial fulfillment of the requirements
for the degree of Doctor of Philosophy

by

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The purpose of this study was to investigate intimate partner violence (IPV) in nine Appalachian Ohio counties by applying the constructs of the Health Belief Model as the theoretical underpinning. A multi-scale instrument was developed to explore participant attitudes toward IPV as a public and personal health concern. Participant ranking of physical, sexual, and expressive aggression, coercive control, and stalking IPV behaviors based on perceived severity was examined. Demographics included age, household income, educational attainment, environment (rural, suburban, urban), Appalachian self-identity, and self-reported lifetime IPV experience. These variables were used to determine if a relationship existed between the variables and attitudes toward IPV behaviors. Cues to action were considered to determine what influences would encourage a woman to seek help if IPV were experienced.

Findings from this study shed light on the diversity in the region, and demonstrated how risk factors played a substantial part in IPV experience, attitudes and behaviors. Results showed how IPV experience (or no experience) may alter perceptions of susceptibility, severity, and barriers to help seeking. Results also presented consistency with seminal findings regarding IPV experience in Appalachia, the effect of labeling one’s self as Appalachian, and the importance of family and friends in
addressing IPV issues. Areas of contradiction were highlighted, specifically in regards to rural environments affecting perceptions, and the importance of health care professionals. The HBM was proven to be an effective theory for evaluating IPV-related health behaviors and perceptions.
ACKNOWLEDGMENTS

Thank you to the agencies that assisted with the research or participated as data collection sites. Special acknowledgment goes to the individuals in each site who gave their time to help arrange and define the data collection protocol. Without your outward support for this project, it would not have been possible.

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Guernsey County Department of Job and Family Services
Zanesville-Muskingum County Health Department
Muskingum Valley Health Centers
Perry County Health Department
Tri-County Help Centers
Noble County Health Department
Monroe County Chamber of Commerce
Open Arms Pregnancy Center
Harrison Times Herald

To the women who felt comfortable participating in this research, your opinions and willingness to share your experiences with IPV provided powerful information. Thank you for offering your valuable knowledge. Please know that you should be considered the experts on this topic, and are the ones who will ultimately make a true difference for victims and survivors of IPV in your area. Also, to those women and men who have survived, are struggling with, or have been taken too soon because of intimate partner violence, without knowing it, you have impacted my life. I hope this research offers a unique viewpoint, and supplies new knowledge to help improve the future for others in your same position.

To my research assistants, your time and dedication to this project was crucial to ensuring each woman who wanted to participate had the opportunity to do so. You helped not only strengthen the voice of the community through your hard work, but also
educated many women and men about the services available to them. A more talented team could not have been assembled.

Thank you to the experts who reviewed the instrument in both the pilot and large scale stages. Your valuable feedback taught me a great deal, and helped improve the quality of the data collected. Edward Bolden, I appreciate your patience in teaching me statistics and for your guidance throughout the data analysis process. Sharon Smith, thank you for your masterful and efficient editing of this document.

Much appreciation goes to my committee: Dr. Dianne Kerr, Dr. Donna Bernert, and Dr. Kimberly Schimmel. Each of you brought a different perspective and matchless value to this project. This research has merit because of your feedback, encouragement, and expertise. I am grateful for your time, support, and efforts. You have made me proud of this final product, and I feel honored to consider you as my mentors.

This project is dedicated to my mother, Susie Burke. Susie-Q, your strength, courage, personal sacrifices, and resiliency to withstand even the worst experiences in life will always be astounding to me. You once said, “I have nothing to give but myself. I work as hard as I can to be the best person I can by caring about others, loving others, and being grateful for what I have experienced.” This project took shape because you instilled in me the importance of standing up for those who are silenced. Individuals from the Appalachian region often are viewed as a certain kind of people. You have taught me to have pride in who I am and to be grateful for where I came from. You are a product of the region, and you make me Guernsey County PROUD!
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CHAPTER I

INTRODUCTION TO THE STUDY

Intimate Partner Violence

Intimate partner violence (IPV) is recognized as a global public health concern (Abramsky et al., 2011; American Psychological Association [APA], 2014; Chibber & Krishnan, 2011), and the most common form of violence against women (Chibber & Krishnan, 2011; Grama, 2000). An estimated 25–35% of women in the United States have experienced some form of violence by an intimate partner (Black et al., 2011; Buss & Duntley, 2011; World Health Organization [WHO], 2012) at some point in their lives. IPV involves physical, sexual, or psychological harm by an intimate partner (Centers for Disease Control and Prevention [CDC], 2013; National Institute of Justice [NIJ], 2007a) that is threatened, attempted, or actual (Abramsky et al., 2011; Buss & Duntley, 2011; Chibber & Krishnan, 2011). IPV occurs between current or previous couples in dating relationships or marriages (NIJ, 2007a; Tjaden & Thoennes, 2000). People of all ages, gender identities, races/ethnicities, economic backgrounds, educational levels, religious affiliations, sexual orientations, and geographic locations are susceptible (WHO, 2012) to experiencing IPV.

The WHO (2012) further elucidates that women can be violent in relationships with men, and violence exists in same-sex partnerships, but “the overwhelming health burden of intimate partner violence is borne by women at the hands of men” (p. 1). An analysis of National Crime Victimization Survey data gathered from 1994–2010 revealed that 4 in 5 victims of IPV were female (Catalano, 2012). The NIJ (2007a) found that
women were exponentially more likely than men to be injured during an IPV experience. “Systemic, persistent, and injurious” violence was also more often perpetrated by men than women (NIJ, 2007a, p. 4). For example, the Violence Policy Center (2006) found in its study that 74% of all murder-suicides involved an intimate partner. Of those, 96% were women killed by their intimate partners. Whereas the literature proved violence does occur in all types of unions, the focus of the current research was on heterosexual relationships, with males as the perpetrator of violence.

Also of vital importance is acknowledgment of the semantics used throughout the course of this document, as language holds weight when discussing IPV (Ingrao, 2014). For the purposes of this research, there is an assumed difference between the terms “victim” and “survivor” (Eyer, 2002; Hart & Klein, 2013). As such, it is critical to consider using the terms in a contextually appropriate manner. Throughout the course of this document, “victim” refers to a person who was the target of violence, and is currently in a violent relationship where action to address the IPV has not yet been initiated (Eyer, 2002; Saltzman, Fanslow, McMahon, & Shelley, 2002). The term “survivor” refers to a person who was in an abusive relationship, but is no longer, or a person who has survived being victimized. Additionally, this term can apply to a person who is actively experiencing IPV, but has started to take action to stop it (Eyer, 2002). Notwithstanding a person’s experiences, a person is not defined by victimization or the perpetrator (Hart & Klein, 2013). This approach was taken, however, as it is believed that IPV experience can be examined in terms of stages ranging from enduring violence (victimization) to stopping the violence (surviving). Depending on where a woman feels she is within these
stages determines what her specific needs are, and how she views herself. To date, there is no single term that can be used to represent the IPV experience that is inclusive of women who identify as victims, and women who identify as survivors.

In the recent past, it was common practice to approach the topic of IPV by exploring the personal characteristics of the perpetrator or the individual victimized. Although this methodology had merit, Liang, Goodman, Tummala-Narra, and Weintraub (2005) explained that it “rendered invisible the larger sociocultural context in which IPV occurs, and implicitly conceptualized violence as stemming from individual pathology or deviance” (p. 71). A review of the literature exposed a more complex connection between risk factors that influence the likelihood of perpetrating or being a victim of IPV (CDC, 2009; Heise, 1998; Smith Slep, Foran, Heyman, & United States Air Force Family Advocacy Research Policy, 2014; WHO, 2012) than simply individual traits. Therefore, examining the etiology of IPV is best accomplished by using a social ecological perspective as a guide. This allows for an investigation of factors both identified and latent from four levels. The intrapersonal level considers specific characteristics of an individual like biology, history, knowledge, and beliefs (Glanz, Rimer, & Viswanath, 2008). The interpersonal level appraises an individual’s social circle such as family, friends, co-workers, and partners (CDC, 2009). These relationships both shape experiences, attitudes, and IPV behaviors. Community aspects include schools, workplaces, and neighborhoods where social relationships occur (CDC, 2009; Glanz et al., 2008). The societal level involves discovering social norms that are acculturated as well as contemplating factors like poverty, unemployment, and environmental stressors.
Ultimately, these established beliefs and ecological influences enhance the social climate for IPV or inhibit IPV acceptance (CDC, 2009).

Some noteworthy risk factors for IPV victimization included low level of educational attainment, exposure to previous forms of violence, acceptance of violence (intrapersonal), male dominance in the family, (interpersonal), economic stress, gender-inequitable social norms, and broad social acceptance of violence as a way to solve conflict (community and societal; CDC, 2009; Stokals, 1996). A truncated list of characteristics that were identified in worldwide research as risk factors for IPV can be found in Table 1.

Women who experience IPV have more health-related complications than do women who have not experienced IPV (Coker et al., 2002). Previous research confirmed that with IPV experience, injury and physical health problems are exacerbated including but not limited to bruises, welts, broken bones, sexually transmitted infections, physical disabilities, and chronic pain (Chibber & Krishnan, 2011; Coker, Smith, McKeown, & King, 2000; WHO, 2012). The literature also demonstrated that there were poorer reproductive health outcomes demonstrated by malnutrition, late prenatal care, increased rates of unintended pregnancy, miscarriage, preterm delivery, and low birth weight infants (Campbell, 2002; Chibber & Krishnan, 2011; WHO, 2012). Additionally, women who had been victimized had a higher occurrence of mental health differences related to low self-esteem, anxiety, depression, eating and sleep disorders, posttraumatic stress disorder, alcohol and substance use disorders, and suicide ideations or attempts (Abramsky et al., 2011; Black et al., 2011; Buss & Duntley, 2011; Chibber & Krishnan,

Table 1

**Social Ecological Perspective Risk Factors for IPV Perpetration and Victimization**

<table>
<thead>
<tr>
<th>Intrapersonal Factors</th>
<th>Interpersonal Factors</th>
<th>Community/Societal Factors</th>
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<td><strong>Perpetrator Characteristics</strong></td>
<td><strong>Victim &amp; Perpetration Characteristics</strong></td>
<td></td>
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<tr>
<td>Young age of perpetrator</td>
<td>Conflict/dissatisfaction in the relationship</td>
<td>Gender-inequitable social norms</td>
</tr>
<tr>
<td>Low level of educational attainment</td>
<td>Male dominance in the family</td>
<td>Low social and economic status of women</td>
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<tr>
<td>Witnessing or experiencing violence as a child</td>
<td>Economic Stress</td>
<td>Poverty</td>
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<tr>
<td>Unhealthy use of alcohol/drugs</td>
<td>Male having multiple partners</td>
<td>Weak community sanctions against IPV</td>
</tr>
<tr>
<td><strong>Victim Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low level educational attainment</td>
<td>Disparity in educational attainment</td>
<td>Broad social acceptance of violence as a way to resolve conflict</td>
</tr>
<tr>
<td>Exposure to violence between parents</td>
<td></td>
<td>Armed conflict and high levels of general violence in society</td>
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<tr>
<td>Sexual abuse during childhood</td>
<td></td>
<td></td>
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<tr>
<td>Acceptance of violence</td>
<td></td>
<td></td>
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<tr>
<td>Exposure to other forms of prior abuse</td>
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</tr>
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*Note.* This is a truncated list provided by the following source: World Health Organization. (2012). *Understanding and addressing violence against women: Intimate partner violence.* Retrieved from http://apps.who.int/iris/bitstream/10665/77432/1/WHO_RHR_12.36_eng.pdf
Besides the copious negative health sequelae, the costs of caring for individuals who have experienced IPV are extensive (Ellsberg, Jansen, Heise, Watts, & Garcia-Moreno, 2008; Liebschultz & Rothman, 2012). Receiving medical care following violent events, utilizing mental health services, intervention of justice services, lost productivity at work, and economic cost of lives lost due to IPV homicide (National Center for Injury Prevention and Control [NCIPC], 2003) add up fiscally. The Centers for Disease Control and Prevention reported that the previous cost estimates of IPV in the United States ranged from $1.7 billion to $10 billion annually (NCIPC, 2003). However, this number was believed to be conservative as IPV was not always reported, and when medical care was required, IPV was not necessarily explained as the cause of the injury (NCIPC, 2003). These cost estimates and consideration of the health-related effects of IPV begin to validate the significant burden IPV imposes in the United States both from health and financial perspectives.

**Appalachia Defined**

Marcum (2008) explained that there are two divisions of thought used to define Appalachia: the geographic perspective and the cultural perspective. In the mid-1960s, President John F. Kennedy became aware that 1 in 3 people who were settled near the Appalachian Mountains were living in poverty. The per capita income was 23% lower than the United States average, and because of the high unemployment rates and harsh living conditions, more than 2 million people had to leave their homes to seek work and refuge in other parts of the United States (Appalachian Regional Commission [ARC], 2014b; Evans, Santelli, & George-Warren, 2004). In response to these findings and this
mass exodus, in 1965, the Appalachian Regional Development Act was passed. The act officially named this region of the United States Appalachia, included a specific definition of what states and counties were classified as Appalachian, and established the Appalachian Regional Commission (ARC, 2014b). Through this act, a clear and vocal point was made that the challenges faced by individuals living in this region were unique, genuine, and different than that of other parts of America. The Appalachian region of the United States, as it is known today, spans 205,000 square miles and follows the spine of the Appalachian Mountains that spread over 420 counties in 13 states including: parts of Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, and all of West Virginia (ARC, 2008; also refer to Campbell, 1921; Ford, 1967; Manzo, 2005; Walls, 1977; Williams, 2002).

Betty Crickard McCartney (in Maurer, 1980) stated that value patterns embraced by people in Appalachia provided an identity that set the region apart from mainstream America. The cultural perspective of Appalachia relates to these values that are defined by Appalachian people of the past and present, and the influence those values have on attitudes, behavior, and lifestyles of today. There is no single set of values that demarcates all of Appalachian culture, or consensus about what values must exist to be Appalachian (Marcum, 2008). In fact, there may be multiple cultural circles simultaneously existing within the region. There is, however, agreement that Appalachian culture is an amalgamation of specific factors that subsist, and have the ability to independently thrive in combination only within this region. Appalachian culture can be described as a culture of collision influenced in part by a rural and
mountainous environment, poverty, political climate, and the beliefs and practices left behind by generations of Appalachian settlers. Abramson and Haskell (2006) effectively defended the cultural perspective when they proclaimed, “the region is a real place with a distinctive history, people, and culture—though often redefined, frequently remapped, and exhaustively debated” (p. ixx). Appalachia cannot be defined just by the mountain range or culture because both influence each other, and neither would exist the same without the other.

**Intimate Partner Violence in Appalachia**

The WHO (2012) explained that certain IPV risk factors were consistently identified across studies from many different countries, but ancillary risk factors were context specific. Risk factors fluctuate based on various characteristics of an individual, event, or an environment. The manner in which people define IPV, in fact, varies between individuals and communities (Geneva World Health Organization, 2005) demonstrating that violence can be embedded within social contexts and cultures (Liang et al., 2005). Since 42% of Appalachia is cataloged as rural, compared to a 20% national average (ARC, 2014b), research often examines behavior in this region as a matter of the relationship between a rural environment and its influence on Appalachian culture. Rural research plays a key role in identifying IPV risk factors common to the rural parts of Appalachia, and Appalachian-specific research validates the connection between the two.

An Internet search on Appalachia produces a wide array of sources boasting about the beautiful landscape, traditional music, art/craft of the region, and native cuisine. On the other side of this chronicle are reports of poverty, economic struggles, and poor
health. Many individuals not privy to modern day Appalachia may believe the hardships of the past have been eradicated as the United States has changed over time. Appalachia has evolved beyond the early stereotypes portrayed in the media (Massey, 2007; Swank, Fahs, & Haywood, 2011), and progressed as a region through diversification and adaptation (Billings, 1999). However, the recent illumination of Appalachia brings new light to the present day struggles of the area. The director and deputy director of the CDC visited a sector of Appalachian Kentucky in early August of 2014. Their visit to this particular part of the United States was provoked because this is one of the unhealthiest areas in the country. High rates of disease in the region were often attributed to poverty, low education levels, stressful, unhealthy lifestyles, and lack of access to health care (Ungag, 2014). Poverty did not just affect this area of Appalachia, as it permeated into accompanying parts of the region. Appalachian Ohio, for example, differed from other areas of Ohio in its geography, history, and political economy (Crowther, Lykins, & Spohn, 1992). In 2014 the Ohio State Poverty Report was released (Office of Research-Ohio Development Services Agency [ORODSA]). Findings revealed that Appalachian Ohio counties had a higher poverty rate than did the state as a whole. The six counties in the state with the highest rates of poverty were all located in the Appalachian band (ORODSA, 2014). Additionally, the Children’s Defense Fund-Ohio (OCDF) released an issue brief in August 2014 reporting that children in Ohio’s Appalachian counties were facing economic and health disparities disproportionate to other areas of the state. Appalachian Ohio counties comprised the largest concentration of child poverty at 28.5% compared to 23.6% for the state (OCDF,
The presented findings demonstrated that this relatively poor region of Ohio had debatably more in common with the rest of Appalachia than with other (Midwestern) parts of the state (Woodrum, 2004).

While much of the research cited on Appalachian culture, poverty, and relationship violence was spearheaded decades ago, the recent reports on the health and the poverty of the region showed that many of the problems that plagued this area in the past, still persist today. IPV is not unique to Appalachia, but its frequency and intensity differs from other locales (Gallup-Black, 2005; Logan, Stevenson, Evans, & Leukefeld, 2004), and therefore, justifies more intent examination. With little IPV-related research concentrated in southeastern Appalachian Ohio, the current study offers an opportunity to investigate the influence of risk factors by inquiring about the perceptions and beliefs of the women in the communities being explored.

Theory/Theoretical Framework

The Health Belief Model (HBM) is proclaimed as a well utilized and tested theory that examines beliefs and intentions related to health behavior. The HBM originated in the 1950s as a means to explain why people were failing to take part in free programs designed to prevent and detect disease (Hochbaum, 1958; Rosenstock, 1974a). Mobile X-ray units were sent out to different neighborhoods as a convenient way to offer chest X-rays to screen for tuberculosis, a major public health concern at the time. Even though this service was offered without cost to participants, and came directly to the target neighborhoods, the program was only moderately successful (Rosenstock, Strecher, & Becker, 1988). It was hypothesized that three factors occurring simultaneously
influenced intention to act on health-related behaviors (Rosenstock, 1974b; Rosenstock et al., 1988). The motivation to make health issues salient in a person’s life was necessary, but an individual also needed to believe there was a perceived threat to his or her health. If a person was motivated and perceived a health threat, he or she then needed to believe that a particular health recommendation would be beneficial in reducing the health threat (Rosenstock et al., 1988). Researchers who used the HBM to explore health behavior such as the tuberculosis prevention example above, analyzed theory constructs including: perceived susceptibility; perceived severity; perceived barriers; perceived benefits; cues to action; and perceived self-efficacy (Glanz et al., 2008; National Cancer Institute [NCI], 2005). Refer to Table 2 and Chapter 2 for a detailed explanation of each construct.

Appalachian research has acknowledged the existence of a shared culture (Keefe, 2005), based on distinctive, deep-rooted mutual values that have been learned and inherited generationally (Marcum, 2008). Health behavior research, conversely, has demonstrated that internalized social norms, or cultural beliefs (Garcia-Moreno, Heise, Jansen, Ellsberg, & Watts, 2005) have been shown to directly influence attitudes, health behaviors, and overall lifestyle (Contos Shoaf, 2004). Therefore, the HBM provides a solid theoretical foundation to explore ingrained values related to IPV matters (Goodrum, Weise, & Leukefeld, 2004; Lengerich et al., 2006) in Southeastern Appalachian Ohio.
### Table 2

*Health Belief Model Constructs Defined*

<table>
<thead>
<tr>
<th>Construct</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Perceived Severity</td>
<td>Belief about how serious the condition and its consequences are</td>
</tr>
<tr>
<td>Perceived Susceptibility</td>
<td>Belief about getting a certain condition</td>
</tr>
<tr>
<td>Perceived Barriers</td>
<td>Belief about the material and psychological cost of taking action</td>
</tr>
<tr>
<td>Perceived Benefits</td>
<td>Belief that the new behavior is more beneficial to do in order to reduce risk</td>
</tr>
<tr>
<td>Cues to Action</td>
<td>Factors that motivate ‘readiness to change’</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>Confidence in one’s ability to take action</td>
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### Purpose and Significance

The purpose of this study was to use a quantitative research approach to investigate IPV in nine Appalachian Ohio counties. By applying the constructs of the HBM, the perception of severity of physical aggression, sexual aggression, psychological aggression (expressive aggression and coercive control), and stalking behaviors was explored. Demographics including age, household income, educational attainment, environment (rural, suburban, and urban), and self-reported lifetime exposure to IPV were examined to determine if a relationship existed between the identified independent variables and attitudes toward IPV behaviors. Also included in the analysis was
Appalachian self-identity. Accepting or rejecting this label may be an influencing factor in this area related to IPV beliefs and behaviors, and allows for investigation of the Appalachian culture concept.

Injury and violence prevention is a topic included in Healthy People 2020 objectives. Objective IPV-39 seeks to reduce violence by current or former intimate partners (United States Department of Health and Human Services [USDHHS], 2010a). Specifically, attention is focused on reducing physical violence (IPV-39.1), sexual violence (IPV-39.2), psychological aggression (IPV-39.3), and stalking (IPV-39.4). These four categories are the main topics for the current research study on IPV in Appalachia. Although this topic has been explored from criminal justice, nursing, and violence studies perspectives, very minimal research (Cornelius, Sullivan, Wyngarden, & Milliken, 2009) has been done from a health education perspective utilizing the HBM as a theoretical underpinning.

The purpose of health education has been explained as a strategy to increase protective factors, decrease risk factors, educate, and help individuals develop skills to make decisions that are conducive to health (Donatelle, 2009; McKenzie, Neiger, & Thackeray, 2009). The majority of research conducted in the health education and promotion field is quantitative whereas the seminal research on IPV in Appalachia, most often cited in the literature, is qualitative (Denham, 1996; Gagne, 1992; Websdale, 1995; Websdale & Johnson, 1997). Further examination of the literature confirms that research methods such as qualitative techniques, specifically focus groups, have been a prominent method utilized in Appalachian research. The qualitative method of research adds great
richness to the IPV discussion and encourages scholars to develop new ideas into causes, consequences, and implementation of programming. However, the use of a smaller number of participants in typically rural areas of Appalachia alters the impact of the research, making it less applicable.

The unique contribution of this study is that it is from a health education perspective utilizing quantitative research methods. Using the HBM as the platform for learning contributes to filling the gap in the literature that exists in violence-related research using this theory. Additionally, this research differentiates the types of violence experienced and perceptions of severity of each type. This information may be beneficial in addressing needs based on types of violence experienced (Kelly & Johnson, 2008; Mechanic, Weaver, Resick, 2008), as different types of violence need managed in ways unique to those experiences. It is imperative that the current research on this specific region of Appalachia (Southeastern Ohio) be examined independently and merged with recent community-based research to provide the most accurate picture of IPV in Southeastern Appalachian Ohio. Using a quantitative approach bridges the gap between health education research and Appalachian IPV research. Those “small-pocket” communities that exist throughout Appalachian Ohio need to be studied further in order to enhance the literature on IPV within Appalachia. Identifying prevailing risk factors within these nine Appalachian Ohio communities is vital to ensure this population is being served aptly.
Research Questions

1. Are there significant differences in attitudes toward IPV between women living in 9 counties in Appalachian Ohio?

2. How do women living in 9 Appalachian Ohio counties score on perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and self-efficacy HBM subscales for the following independent variables: (a) age, (b) household income, (c) educational attainment, (d) rural, suburban, or urban environment, (e) Appalachian self-identity, and (f) lifetime IPV experience?

3. How are physical aggression, sexual aggression, expressive aggression, coercive control, and stalking IPV behaviors rated in terms of perceived severity by women living in 9 Appalachian Ohio counties?

4. What cues to action would influence women living in 9 Appalachian Ohio counties to seek help if they had experienced IPV?

Hypotheses

1. IPV in Appalachia will be seen as an issue of concern by the women participating across the counties being investigated.

2. There will be no significant differences in regards to help-seeking behavior between women who self-identify as Appalachian compared to women who do not.
3. There will be no significant differences in perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and self-efficacy HBM subscales.

4. There will be no significant differences in perceived severity for physical, sexual, and expressive aggression, coercive control or stalking behavior subscales.

5. Children being in the home and family urging will be the top rated cues to action.

Delimitations and Limitations

The study sample was drawn from a population living in 9 Appalachian counties in Southeastern Ohio. Adults who patronized participating public facilities were invited to complete the created survey instrument. Therefore, this was a convenience sample of adult women who self-selected to participate in the research. This delimited the study to persons who came to the public facilities on the days data were collected, limiting the generalizability of the results in two key ways. First, each public facility received more patrons who resided in the city of origin. There was a large concentration of participants from one city in each county studied. Secondly, because only 9 of 32 Appalachian Ohio counties were researched, the findings cannot be generalized to all of Appalachian Ohio. In addition, these results cannot be generalized to women living within the Appalachian region since only women in Ohio participated. However, the study results provided valuable information, as Appalachian Ohio-specific research is limited. Additionally, the
findings served useful to the participating public facilities that were health based, as the
data represented their clientele.

**Definition of Terms**

*Control of Reproductive/Sexual Health:* “The refusal by an intimate partner to
use a condom. For a woman, it also includes times when a partner tries to get her
pregnant when she did not want to become pregnant” (Black et al., 2011, p. 37).

*Culture:* “The whole complex of traditional behavior which has been developed
by the human race and is successively learned by each generation. A culture is less
precise. It can mean the forms of traditional behavior which are characteristic of a given
society, or of a group of societies, or of a certain race, or of certain area, or of a certain
period of time” (Mead, 1937, pp. 17-18).

*Domestic Violence:* Includes; a person knowingly causing or attempting to cause
physical harm to a family or household member; a person recklessly causing serious
physical harm to a family or household member; a person, by threat of force, knowingly
causin a family or household member to believe that they are in imminent physical
harm. A family or household member means any of the following who is or has resided
with the perpetrator: parent, foster parent, child, another relative, spouse, person living as
a spouse, or former spouse (Ohio Revised Code 2919.25).

*Intimate Partner:* Includes: current spouses (including common-law spouses);
current non-marital partners; dating partners, including first date (heterosexual or same-
sex); boyfriends/girlfriends (heterosexual or same-sex); former marital partners; divorced
spouses; former common-law spouses; separated spouses; former non-marital partners;
former dates (heterosexual or same-sex); former boyfriends/girlfriends (heterosexual or same-sex; Saltzman et al., 2002).

*Intimate Partner Violence:* Any violent behavior threatened, attempted or actual by a spouse, ex-spouse, or current or former intimate partner that causes physical, psychological, or sexual harm to those in the relationship. A specific type of domestic violence (CDC, 2003; WHO, 2012).

*Perpetrator:* “Person who inflicts the violence or abuse or causes the violence or abuse to be inflicted on the victim” (Saltzman et al., 2002, p. 11).

*Physical Violence/Aggression:* “Includes a range of behaviors from slapping, pushing or shoving to severe acts such as being beaten, burned, or choked” (Black et al., 2011, p. 37).

*Psychological Violence/Aggression:* “Expressive aggression (name calling, insulting or humiliating an intimate partner) and coercive control, which includes behaviors that are intended to monitor and control or threaten an intimate partner” (Black et al., 2011, p. 37).

*Rape:* “Any completed or attempted unwanted vaginal (for women), oral, or anal penetration through the use of physical force (such as being pinned or held down, or by the use of violence) or threats to physically harm and includes times when the victim was drunk, high, drugged, or passed out and unable to consent. Rape is separated into three types, completed forced penetration, attempted forced penetration, and completed alcohol or drug facilitated penetration” (Black et al., 2011, p. 17).
**Sexual Violence/Aggression:** “Includes rape, being made to penetrate someone else, sexual coercion, unwanted sexual contact, and non-contact unwanted sexual experiences” (Black et al., 2011, p. 37).

**Stalking:** “Involves a pattern of harassing or threatening tactics used by a perpetrator that is both unwanted and causes fear or safety concerns in the victim. A person is considered a stalking victim if they experienced multiple stalking tactics or a single stalking tactic multiple times by the same perpetrator and felt very fearful, or believed that they, or someone close to them, would be harmed or killed as a result of the perpetrator’s behavior” (Black et al., 2011, p. 29).

**Survivor:** A person who was in an abusive relationship, but is no longer. A person who has survived being a victim. Additionally, this term can apply to a person who is actively experiencing abuse or being victimized, but has started to take action to stop the abuse (Eyer, 2002).

**Victim:** “A person who is the target of violence or abuse” (Saltzman et al., 2002, p. 11). Additionally, this term can apply to a person who is actively experiencing abuse or bring victimized, but has not yet taken action to stop the abuse (Eyer, 2002).
CHAPTER II
LITERATURE REVIEW

Defining Intimate Partner Violence

Terms related to violence against women have been used by researchers in different ways, and sundry terms to describe the same acts were rampant in the literature (Saltzman et al., 2002). There is not currently a consensus on what types of violence IPV includes (Ansara & Hindin, 2010; Hegarty, Sheehan, & Schonfeld, 1999; National Research Council, 1996), or what is appropriate terminology (domestic violence, spousal abuse, dating violence, family violence, etc.; Plichta, 2004). Many studies have only explored physical violence, specific types of sexual violence, or required a person’s living situation and relationship status to serve as an IPV experience qualifier (Abramsky et al., 2011; Tjaden & Thoennes, 1998, 2000). Other studies provided a broad explanation of the concept. These inconsistencies contributed to mottled conclusions about the incidence and prevalence of violence against women (Saltzman et al., 2002). How IPV was defined, however, dictated the ability to appropriately compare findings across studies, and to precisely gauge the true measure of the problem.

The CDC (2014) incorporated physical violence, sexual violence, and psychological aggression in their definition of IPV. The WHO’s (2013) explanation of IPV was more specific and included examples of sexual coercion, physical aggression, and controlling behaviors. However, stalking was not a delineated component in either definition. The National Intimate Partner and Sexual Violence Survey (NISVS) assessed specific behaviors that fit into four main categories including: sexual violence; physical
violence; psychological aggression (expressive aggressive and coercive control); and stalking. Whereas not traditionally seen as a type of violent behavior, stalking has been included in IPV research because it can be a result of addressing IPV or be a precipitating event to IPV occurring (CDC, 2014; NIJ, 2007b). Therefore, stalking, along with physical violence, sexual violence, expressive aggression, and coercive control are examined in the current study.

As illustrated above, IPV has taken form through a multitude of violent behaviors (Whitaker, Baker, & Arias, 2007). Although each type of violence is defined separately below, it is crucial to mention that violence co-occurred over time (Thompson et al., 2006). Henning and Klesges (2003) found that 95% of men who physically abused their intimate partner were also psychologically abusing them. Findings from the NISVS revealed that 1 in 3 women experienced multiple types of violence (Black et al., 2011). Yet another study revealed that nearly two-thirds of the women surveyed who had experienced IPV at some point in their lives had experienced both physical violence and psychological aggression (Coker et al., 2006). These findings have been supported as psychological aggression has been shown to lead to instances of physical violence and/or sexual violence, and vice versa (Carlson, McNutt, Choi, & Rose, 2002; Follingstad, Rutledge, Berg, Hause, & Polek, 1990; Rees et al., 2011).

**Physical Violence**

According to the CDC (2014), physical violence involves the “intentional use of physical force with the potential for causing death, disability, injury, or harm” (para 3). Specific behaviors include, but are not limited to: pulling hair; slapping; hitting; pushing;
kicking; being beaten; burned; or choked (Black et al., 2011; CDC, 2008). Furthermore, research shows that victims of physical violence were at an increased risk of experiencing severe violence or death when leaving an abusive partner (Campbell, 2002; VanNatta, 2005). Although the majority of IPV research has focused on male-to-female violence, women have reported perpetrating violence against intimate partners as a means to resist violence, to escape an attack, or in retaliation for past abuse (Busch & Rosenberg, 2004; Hines & Douglas, 2009; Kelly & Johnson, 2008). In contrast, men have reported using physical violence to control, dominate, or punish their partner (Busch & Rosenberg, 2004).

**Sexual Violence**

Sexual Violence is defined by the Office on Violence Against Women (2014) as “any type of sexual contact or behavior that occurs without the explicit consent of the recipient” (para 3). Breiding, Chen, and Black (2014) enhanced this definition by including specific acts of rape, being made to penetrate someone else, sexual coercion, unwanted sexual contact, and non-contact unwanted sexual experiences. Sexual violence could transpire as a single incident, or it could be a marker of more severe violence and perhaps of violence escalation (Coker et al., 2000) yet to arise.

Sexual violence, as well as physical violence, also involves intimidation through the use of words, gestures, or weapons to communicate the intent to cause injury, physical harm, disability, or death (CDC, 2014). For example, an intimate partner threatens to harm a partner’s reputation if he or she does not have sexual intercourse. Although the partner is not physically forced to participate in the sexual activity, the
threat makes the situation forcefully violent. It is here that the intersection between the various forms of IPV is apparent. Additionally, the control of reproductive or sexual health is placed in this category. This includes refusal of a partner to wear a condom, trying to get a partner pregnant when she does not want to be, or trying to get pregnant when it is not wanted by the partner (Black et al., 2011).

**Psychological Aggression**

Like IPV, psychological aggression has been difficult to succinctly define because of its subjective nature. Some sources only considered psychological aggression to have taken place if there were prior threats of or actual physical or sexual violence (CDC, 2014). Other researchers did not place this stipulation on the concept (Black et al., 2011, Pico-Alfonso et al., 2006). Although research suggested that psychological aggression could be even more harmful than physical violence (Dutton & Goodman, 2005; Follingstad et al., 1990; GWHO, 2005), there was a great deal of variance in the degree to which psychologically aggressive behavior was “acceptable (normal) in different cultures” (GWHO, 2005, p. 9). Thus, there is little agreement about how to determine when psychologically aggressive behavior becomes abusive and can be classified as IPV (Black et al., 2011). An existing problem in the literature has been the complexity of defining and ultimately measuring psychological aggression in a way that is relevant and meaningful across cultures (GWHO, 2005). In general, this term refers to trauma caused by acts, threats of acts, or coercive tactics (CDC, 2014). For the purposes of the current research study, psychological aggression is categorized into coercive control and expressive aggression.
The most common form of psychological aggression is expressive aggression (Black et al., 2011). This form of violence does not involve physicality, but instills a sense of fear in a partner through words, indirect actions, and intentionally trying to psychologically injure a partner. Examples include: calling a partner names like ugly; fat; crazy; or stupid; sharing personal or embarrassing information about a partner; humiliation; deliberately doing something to make a partner feel embarrassed; or witnessing an intimate partner being angry in a way that seems dangerous (Black et al., 2011). Coercive control, on the other hand, involves behaviors that are intended to control, monitor, or threaten an intimate partner (Black et al., 2011). Men who had physically abused their partners also exhibited higher rates of controlling behavior (controlling what a partner could and could not do, withholding information from a partner, isolating a partner from friends and family, or denying the partner access to money or other basic resources) than men who did not (Black et al., 2011; GWHO, 2005). Even though psychological aggression can occur independently from other forms of violence, and does not involve physicality, the literature proves there are significant health consequences (Pico-Alfonso, 2005) that should not be ignored.

Stalking

According to the CDC (2014), stalking is defined as “harassing or threatening behavior that an individual engages in repeatedly” (para 4). As with perpetrators of the other forms of IPV, stalkers are motivated by a desire to exert control over their victims (NIJ, 2007b). There are infinite methods used by individuals to stalk a current or former intimate partner. Some examples include: following a person; appearing at a person's
home or place of business; making harassing phone calls; leaving written messages or objects; sending unwanted presents; harassing electronically by posting personal information; defaming the victim's character; spreading rumors; or vandalizing a person’s property (Breiding et al., 2014; CDC, 2014; NIJ, 2007b).

**Health Consequences of Experiencing Intimate Partner Violence**

Violence against women has a substantial impact on health (Garcia-Moreno et al., 2005). The effects of IPV can be immediately apparent, or manifest themselves over time. The WHO Multi-country study (WHO-O; GWHO, 2005) found that women who had experienced physical and/or sexual partner violence were significantly more likely to report poor or very poor physical and mental health than women who had not experienced partner violence. These findings have been replicated in numerous other research studies (Campbell, 2002; Chibber & Krishnan, 2011; Coker et al., 2000; Ellsberg et al., 2008). Campbell (2002) found that the rate of injury resulting from IPV far exceeded the rate of medical attention sought with less than half of women who were injured in a violent intimate relationship actually seeking help. Those individuals who did receive medical intervention shortly following the event tended to cease to medically manage symptoms over time even though the consequences lingered.

IPV served as a mechanism for direct and indirect health outcomes (Coker et al., 2000) resulting in both observable and invisible effects. Whereas there was much evidence examining physical injuries, little epidemiological research had focused on long-term, non-injurious physical health consequences (Coker et al., 2000). These functional disorders or stress-related conditions could indirectly be caused by
experiencing IPV, and were more common than direct physical injuries (WHO, 2012). Women who experienced IPV were more likely to have gastrointestinal symptoms (frequent indigestion, loss of appetite, eating disorders), diagnosed functional gastrointestinal disorders (chronic irritable bowel syndrome), spastic colon, and stomach ulcers (Campbell, 2002; Coker et al., 2000) associated with chronic stress. The experience of IPV resulted in recurring central nervous system symptoms such as headaches, fainting and seizures (Campbell, Glass, Sharps, Laughton, & Bloom, 2002; Chibber & Krishnan, 2011; Liebschultz & Rothman, 2012). Additionally, experiencing physical violence increased chronic pain and exacerbated or contributed to the development of angina and hypertension (Coker et al., 2000).

IPV, specifically sexual violence, can result in various sexual health consequences. Women who were sexually abused by an intimate partner were at an increased risk of contracting a sexually transmitted infection, HIV (Chibber & Krishnan, 2011), developing urinary tract infections, chronic pelvic pain, and experiencing numerous gynecological disorders (Campbell, 2002; Cobia, Robinson, & Edwards, 2008). The employment of sexually abusive acts such as verbal sexual degradation resulted in decreased sexual desire and decreased self-esteem (Campbell, 2002). Controlling acts, such as refusal to use condoms or refusal to use contraception (Campbell, 2002; Campbell & Soeken, 1999), also played a part in adverse effects. As a person might not want pregnancy to occur, or was concerned about STIs, secret use of contraception occurred. There were both health and violence risks involved in a strategy like this (Campbell, 2002).
When measuring health effects of IPV, the long-term psychological effects often were not considered (Coker et al., 2000). However, physical, sexual, psychological IPV, and stalking were strongly associated with negative mental health outcomes (Coker et al., 2002). Depression and post-traumatic stress disorder were the most prevalent mental-health effects of IPV (Campbell et al., 2002; Dillon, Hussain, Loxton, & Rahman, 2013; Pico-Alfonso, 2005). Some women had chronic depression that was intensified by the stress of a violent relationship, but there was also evidence that onset of depression could be triggered by IPV (Campbell et al., 2002). Longitudinal evidence demonstrated depression lessening with decreasing IPV (Campbell et al., 2002). Research also showed that the prevalence of PTSD was higher in women who had experienced IPV than for women who had not (Campbell et al., 2002). Pico-Alfonso et al. (2006) analyzed data gathered from 182 women. Experience categories were created: nonabused \((n = 52)\); physically/psychologically abused \((n = 75)\); and psychologically abused \((n = 55)\). There were significant differences between groups in the severity of self-rated depressive and PTSD symptoms. Both physically/psychologically and psychologically abused women had higher scores than the non-abused group (Pico-Alfonso et al., 2006). Ellsberg et al. (2008) conducted a cross-sectional study using the population-based data gathered during the WHO-O study. Common symptoms of IPV experienced included emotional distress, anxiety, and the development of phobias (Ellsberg et al., 2008; GWHO, 2005; WHO, 2012). This distress was expressed through behaviors reported including crying easily, inability to enjoy life, fatigue, suicidal tendencies, and thoughts of suicide (Devries et al., 2013; Ellsberg et al., 2008; GWHO, 2005). Physical consequences of IPV were
damaging, but the mental health consequences also played a major role in health, perceived quality of life, and overall wellness (Bonomi, Anderson, Rivara, & Thompson, 2007).

**Rates of IPV**

Accurately identifying rates of IPV is complex because of the variance in violence definitions, data collection methods, populations investigated, and reporting of IPV events by victims, shelters, and health care facilities (WHO/London School of Hygiene and Tropical Medicine, 2010). Therefore, the approximations presented for the purposes of this research were generated from three notable studies that examined violence against women on a national level between the years of 1995 and 2010. Additionally, the Bureau of Justice Statistics analysis of data gathered from 1993–2010 was included. The *National Violence Against Women* survey (Tjaden & Thoennes, 2000; Tjaden & Thoennes, 2006), the *WHO-O* (GWHO, 2005) study, and the *NISVS* (Black et al., 2011) provided population-based data on the various types of IPV, and offered statistical analysis of incidence and prevalence.

Survey findings revealed that on average, every minute, 24 people in the United States became victims of sexual violence, physical violence, or stalking by an intimate partner (Black et al., 2011). The highest rates of IPV were experienced by women in the 18 to 24 and 25 to 34 age group (Catalano, 2012). It was estimated that 35.6% of the United States’ female population had experienced some form of sexual violence, physical violence, or stalking at the hands of an intimate partner during her lifetime. There was an estimated 28.5% lifetime prevalence for men. Women were more likely to experience
multiple forms of IPV simultaneously while men most often only experienced physical violence (Black et al., 2011) or psychological aggression. Minorities had higher rates of IPV than did Whites (Tjaden & Thoennes, 2000). Lower income women had higher rates of IPV than did higher income women (Black et al., 2011). Less educated women had higher rates of IPV than did more educated women (Walters, Chen, & Breiding, 2013). Couples with education, employment, or income gaps had higher rates of IPV than did couples without a status disparity (Campbell et al., 2007). Unmarried, cohabitating couples had higher rates of IPV than did married couples (Campbell et al., 2002). Additionally, because ending a relationship was commonly believed to pose an increased risk for stalking, or escalation of IPV, divorced or separated women reported more IPV than did married women (Campbell et al., 2007; Tjaden & Thoennes, 2006).

Although rape-related crime was considered gender-neutral violence, the *NVAVW* survey findings indicated that most rape victims (85%) were women, and most perpetrators were men. Still, only 1 in 5 women were believed to ever report a rape (Black et al., 2011). Physical violence was the most common form of IPV reported (GWHO, 2005). Severe physical violence was defined as hitting with a fist or something hard, being beaten or slammed against something, choked, etc. (Black et al., 2011). This form of physicality was experienced by 1 in 4 women and 1 in 7 men (Black et al., 2011) at some point in his or her lifetime.

Experience of physical or sexual violence, or both, tended to be accompanied by more emotionally abusive (Tjaden & Thoennes, 2000) and controlling behavior by an intimate partner (GWHO, 2005). In fact, having a verbally abusive partner was the
variable most likely to predict if a woman would be victimized by an intimate partner (Tjaden & Thoennes, 2000). Even though statistics painted a picture that women were more likely to experience psychological aggression, women and men reported to have experienced this form of IPV at nearly the same rates, with close to half of respondents identifying as having experienced this type of violence (Black et al., 2011). Stalking was often considered a form of psychological aggression. Prior to the NVAW study, information on stalking prevalence was limited to estimates provided by mental health professionals working with known stalkers (Puente, 1992; Tjaden & Thoennes, 2000). Now, the data were more scientifically gathered, and more accurate. The NISVS results revealed that 1 in 6 women and 1 in 19 men experienced stalking victimization at some point in their lives (Black et al., 2011). Of these participants, 66.2% of women were stalked by a current or former intimate partner and 41% of the men surveyed were stalked by an intimate partner (Black et al., 2011).

**Ohio-Specific Rates**

Ohio has a similar rate of IPV lifetime prevalence to the national average with 35.6% and 30.0% for women and men respectively (Black et al., 2011). According to the Ohio Attorney General’s Office (2012), in 2011, law enforcement responded to 74,842 domestic dispute calls and documented 60,012 victims of those dispute calls. Additionally there were 68 fatalities that included 38 victims of IPV and 30 offenders.

**Rates of IPV by Sexual Orientation**

Since the vast majority of IPV research focused on male-to-female victimization, statistical findings were difficult to apply with female-to-male and same-sex violence
(Kelly & Johnson, 2008; Whitaker et al., 2007). Consequently, the above results were presented as collective data. However, the NISVS (Black et al., 2011; Walters et al., 2013) did assess IPV experience specifically related to sexual orientation. Currently, there is limited national information available on IPV, sexual violence, and stalking prevalence rates of lesbian, gay, and bisexual individuals. Previous studies exploring sexual orientation used non-representative samples that provided valuable data, but was inconsistent across groups (Rothman, Exner, & Baughman, 2011; Tjaden & Thoennes, 2000; Walters et al., 2013).

Overall findings from the NISVS revealed bisexual women had significantly higher lifetime prevalence of physical violence, rape, and stalking experiences by an intimate partner when compared to lesbian and heterosexual women (Walters et al., 2013). Bisexual women and men were more likely to experience IPV than lesbian or heterosexual individuals (Walters et al., 2013). The majority of bisexual and heterosexual women (98.3% & 99.1%, respectively) who experienced rape in their lifetime reported only having a male perpetrator. Lesbian women (67.4%) were more likely to be abused by a female perpetrator. Lifetime prevalence rates for experiencing severe physical violence by an intimate partner was reported by 1 in 3 lesbian women, 1 in 2 bisexual women, and 1 in 4 heterosexual women (Walters et al., 2013). Lifetime prevalence rates for experiencing psychological aggression were reported for 6 in 10 lesbian women, 7 in 10 bisexual women, and 5 in 10 heterosexual women. Bisexual women (1 in 3) were 50% more likely than heterosexual women (1 in 6) to have experienced stalking. Lastly, more than one-third of lesbian women, more than half of
bisexual women, and less than one-third of heterosexual women in the United States who experienced rape, physical violence, or stalking by an intimate partner reported at least one measured impact (i.e., broken bones, digestive issues, negative mental health effects) related to these or other forms of violence in that relationship (Walters et al., 2013).

**Appalachian Risk Factors for Intimate Partner Violence**

Appalachia is not as homogenous as many people imagine. It is, in fact, very diverse and heterogeneous in its inclusion of cities and farms, different cultural beliefs, and people (Thorne, Tickamyer, & Thorne, 2004). As discussed in Chapter 1, risk factors were identified from an ecological perspective (Stokals, 1996) and positioned an individual, family, community, or society at an increased likelihood that a problem behavior would occur (CDC, 2013; Tjaden & Thoennes, 2000). Particular risk factors were specific to a setting, culture, or age group while certain risk factors seemed to exist without prejudice.

In Appalachia, there was great diversity in the risk factors present. Evans et al. (2004) stated, “It’s easy to romanticize Appalachia—perhaps as easy as it is to marginalize it and its people” (p. xii). Various parts of the region were described as thriving economically (ARC, 2013; Thorne et al., 2004), educationally, and culturally (Billings, 1999). However, there were areas in this region that still struggled with meeting basic needs, had the most desperate and devastating poverty extant in the United States (ARC, 2014a), had low educational achievement, had high illiteracy rates (Denham, Meyer, Toborg, & Mande, 2004), and held tightly to the original, distinct cultural values of early settlers (Evans et al. 2004).
Research studies that were conducted 15 to 20 years ago (Gagne, 1992; Websdale & Johnson, 1997) were still consistently cited in the literature. Appalachian-specific IPV research was sparse compared to general research on IPV with more recent, groundbreaking literature being limited. Although some of these early findings were no longer relevant today, many current studies (Coyne, Demian-Popescu, & Friend, 2006; Gavin, 2008) replicated results of the early studies. Thus, this report of risk factors commonly discussed in the literature was not meant to perpetuate preexisting stereotypes of the Appalachian region (Haywood & Swank, 2008; Isserman, 1997; Lewis & Billings, 1997; Thorn et al., 2004), but rather, served as a foundation for scholarly exploration. Appalachian risk factors that were investigated in more detail included rural status, isolation, weak community sanctions against IPV, traditional gender norms, poverty, economic stress (socioeconomic status, unemployment), low educational attainment, prevalence of weapons, and substance use.

**Rural Versus Urban**

Behringer and Friedell (2006) explained that “there is clearly a distinguishable Appalachian culture and ‘place’ is a prominent feature in that culture” (p. 3). Although only 20% of the United States was considered rural, 42% of Appalachia’s population actually lived in rural areas (ARC, 2014b; Denham et al., 2004; Griffith, Lovett, Pyle, & Miller, 2011). As such, many of the findings from rural-specific research were applied to the discussion of the Appalachian region. Research findings on IPV revealed numerous similarities between rural and Appalachian settings; thereby supporting the belief that some Appalachian risk factors were a feature of rural life. Breiding, Ziembroski, and
Black (2009) analyzed data gathered in 2005 from the first installation of the IPV-module of the *Behavioral Risk Factor Surveillance System*. Contrary to previous findings (Murty et al., 2003; Peek-Asa et al., 2011), there was not a significant difference reported for IPV lifetime prevalence when comparing rural and non-rural men and women. However, women in rural areas were at a higher risk for intimate partner homicide (Peak-Asa et al., 2011; Rennison & Welchans, 2000). In a review of 20 years of data, Gallup-Black (2005) found that intimate partner murders decreased in all areas except in rural communities where rates actually increased variably over the course of a 10-year span. There were also more murders by intimate partners in those rural areas. Additionally, the more rural the area in which a woman lived, the more incidence of IPV, and the more severe the IPV was found to be (Pruitt, 2008; Vinton, 2011; Websdale & Johnson, 2003). Websdale and Johnson (1998) discovered that three types of physical abuse by an intimate partner occurred more frequently in rural Appalachia than in other settings including hair pulling, being tortured, and being shot. While prevalence findings were conflicting, there did seem to be a consensus that the IPV experience and risk indicators in a rural setting differed from that of other locales, with specific areas at greater risk for higher prevalence, incidence, and IPV severity (Breiding et al., 2009; Murty et al., 2003; Websdale & Johnson, 1998).

Few (2005) stated that rural areas were prone to intimate partner violence because risk factors were prevalent that did not exist in other settings. The make-up of rural communities and geographic topology played a major role in the susceptibility to violence. Smaller rural communities were often composed of tightly knit networks
(familial/friend) with individuals depending heavily on one another. However, paradoxically, self-sufficiency and privacy was a main priority (Breiding et al., 2009; Tang & Russ, 2007). Maintaining this desired privacy in a rural setting was a stress unique to that area. Because of the potential for loss of anonymity and confidentiality through dense acquaintanceships, fear of stigmatism, not only for themselves but for family or clan members was a palpable concern for rural residents (Mulder & Chang, 1997) who experienced IPV. Fear was noted in a variety of ways in the research conducted by Riddell, Ford-Gilboe, and Leipert (2009). There was fear for personal safety, long response times in an emergency situation, and fear of harm being done to a child, family members, or pet. Fear of the unknown was also common in this theme. If the woman left the abusive situation, where would she go? How would she support herself and children? Would she live in the city? Would she have to leave behind her family and friends to seek safe ground? Privacy could be an issue in this locale, and the geography of rural areas facilitated isolation that supported IPV (Gallop-Black, 2005) in communities. Many of these findings were validated through Appalachian research, directly connecting rural risk factors to Appalachia.

**Isolation**

Geographic location and forced isolation has been shown to be a liability for many women in violent relationships in Appalachia. The function of IPV centered on limiting female autonomy with the perpetrator retaining control (Buss & Duntley, 2011). A partner’s governing behaviors increased social isolation and obstructed efforts to escape IPV or seek help when living in a rural setting. Gagne (1992) and Websdale
(1995) reported that the men who participated in their studies in Appalachia segregated their partners from friends and family as a means to control them. In a study conducted by Riddell et al. (2009), three forms of control were evident: normative control took (traditional gender roles); persuasive control (threats and isolation); and physical control (violence intended to instill fear).

Not owning a personal vehicle, not having a driver’s license, perpetrators disabling vehicles, and monitoring odometers were techniques that heightened isolation and served to prevent women from leaving a violent situation (Gagne, 1992; Websdale, 1995; Websdale & Johnson, 1998). As in most rural areas, many Appalachian communities lacked the infrastructure for public transportation, which further intensified isolation, increased vulnerability to violence, and halted the help-seeking process (Aldrich & Mazur, 2005; Logan et al., 2004; Websdale & Johnson, 1998; Wewers, Katz, Fickle, & Paskett, 2006). Seeking refuge without transportation when experiencing an IPV incident was difficult as rural communities could be large in terms of square mileage (Grama, 2000), had increased distance between homes, and the terrain could sometimes be difficult to maneuver (Mulder & Chang, 1997). Additionally, safe spaces like police stations, hospitals, and shelters were often miles away, making those facilities more taxing and time consuming to access (Grama, 2000; Grossman, Hinkley, Kawalski, & Margrave, 2005; Hilbert & Krishnan, 2000; Peek-Asa et al., 2011). Appalachian Ohio residents, for example, were more likely than other Ohioans to travel greater distances to obtain medical assistance (Wewers et al., 2006) because there were simply less options available with facilities routinely located in more urbanized areas. Since more time could
lapse when responding to an emergency in rural areas, it was suggested that many IPV assaults occurring in rural settings became homicides because of the lack of immediate medical services (Gallop-Black, 2005; Websdale, 1999) for victims. Ultimately, the geographic and forced social isolation hindered utilization of services even if women were aware (Contos-Shoaf, 2004) they were in place to assist with IPV.

**Appalachian Cultural Beliefs**

Often it was assumed that if there were recognition of the singularity that existed in Appalachian culture (Evans et al., 2004) that this implied hegemony, and the nonexistence of other, sub-dominant cultures (Keefe, 2005). In 1937 Margaret Mead defined culture as “the whole complex of traditional behavior which had been developed by the human race and was successively learned by each generation” (p. 17). Through her work with aboriginal peoples, she discovered that defining culture so precisely was ultimately egocentric. To open the topic of culture up for a deeper understanding, she elucidated, “A culture is less precise. It can mean the forms of traditional behavior which are characteristic of a given society, or of a group of societies, or of a certain race, or of certain area, or of a certain period of time” (Mead, 1937, p. 18). She further explained:

So it is possible to speak of Zuni culture, by which we mean the culture which is shared by all the members of Zuni society. Or we can speak of American Indian culture, in which we should properly include not only the culture which was characteristic of American Indians at the time of the discovery of America, but such aspects of their behavior as their adjustment to reservation life or their attitude toward the white man's alcohol. Or, third, we could speak of the culture
of the inhabitants of the North American continent, in which case we should include not only Indians but also the traditional culture of all the inhabitants of this continent at any selected period in time. This latter use of the term has greatest value when our attention is focused upon the relationship between the behavior of the inhabitants and the natural environment. Last, we could speak of the culture of the Middle Ages, in which we should include the then existing traditional behavior of all the peoples of the world at, say, A.D. 1200. But it is always necessary to particularize the term culture, if we wish to speak of a culture at all. (pp. 17-18)

Mead (1937) rationalized that the existence of one culture did not mean the non-existence of another. Historical experiences of Appalachians played a role in what information and traditions have been shared (Obermiller & Maloney, 2002), and served to make a “heterogeneous racial and ethnic aggregate of people into a regional group with a shared identity” (Keefe, 2005, p. 9) known as a culture (Elam, 2002). When considering culture in Appalachia, it was important to examine past findings and recent research, as physical environments transformed, and time solidified or redefined personal beliefs.

Gender roles, weak sanctions against IPV, and family connectedness have been identified as specific cultural “norms” that impacted perception of and help-seeking for IPV. Logan et al. (2004) found that traditional gender roles were reinforced in rural settings which included a patriarchal hierarchy, women remaining in the residence to care for the home and children, and men working to provide the income for the family unit (Contos Shoaf, 2004; Few, 2005; Logan et al., 2004). Gender roles were strongly defined
by culture, and certain beliefs condoned IPV (Libuku, Small, & Wilkinson, 2008; WHO/LSHTM, 2010). Logan et al. (2004) discovered that through prolonging traditional gender roles, violence against women was perceived to be a “normal part of life” (p. 55). Also in 2004, the *Ohio Domestic Violence Needs Assessment* was conducted with women who lived in three counties in Appalachian Ohio (Contos Shoaf, 2004). They also found IPV to be an ingrained normalcy. This example provided further evidence that research conducted in rural settings, Logan et al., for example, provided valuable considerations for Appalachian IPV studies.

Coyne et al. (2006) conducted 10 focus groups (five with women, five with men) in West Virginia to learn about cultural norms in rural Appalachia. They found that patriarchy as a cultural value was not a strong factor in IPV, but family was. Family provided a sense of togetherness, was a resource for problem solving, and was “a circle that can’t be broken” (Coyne et al., 2006, p. 5). Denham et al. (2004) conducted focus groups on various health-related topics in 24 Appalachian counties. They discovered that discussions were flooded with stories related to caring for family and life revolving around that family. More recently, Rezek (2010) conducted a qualitative study with women who lived in West Virginia. These women had children when they were 15 to 17 years old and were in their mid to late 20s at the time of the research. The prevailing theme was the importance of family and the gender roles of women including caring for the child, and being the “heart” of the family. This collision of accepting gender roles and creating a tight knit clan directly influenced the cultural view of IPV.
Denham et al. (2004) stated that culture held “profound sway in perceptions, interactions, and relationships among individuals within their communities” (p. 293). Appalachians had been characterized as being private (Behringer & Friedell, 2006; Breiding et al., 2009; Coyne et al., 2006) with a desire to manage family issues without seeking outside assistance. Various studies conducted in Appalachia have revealed that IPV was seen as a family matter and not a serious crime instilling “what goes on in the family stays in the family” mentality (Contos Shoaf, 2004). Through their study conducted with individuals residing in West Virginia, Coyne et al. (2006) found that family problems were dealt with internally with second-degree relatives such as aunts, cousins, uncles, and grandparents being utilized when needed. Toborg, Meyer, and Mande (1997) found that family played an abundantly important role in influencing older family members to consider change in health-related practices if a potential benefit for younger family members was made apparent.

Because of the importance of maintaining this familial hierarchy, Appalachian women were often discouraged and criticized for seeking help beyond the family unit (Contos Shoaf, 2004; Logan, Evans, Stevenson, & Jordan, 2005; Rhodes & College, 2012). Sandberg (2013) expounded that the discourse on the idyllic peace of living in rural Appalachia where neighbors helped each other was at odds with the experiences of rural victims of IPV. For instance, Websdale (1995) discovered that neighbors denied that abuse occurred, even when they were directly confronted with the violence through witnessing it, or being told of its occurrence. Gagne (1992) and Websdale (1995) found that neighbors provided help in emergency situations, but refused to intervene in what
were considered family matters, such as IPV. DeKeseredy and Schwartz’s (2009) findings further demonstrated a motivation to protect neighbors from crime, but also exhibited a reluctance to intervene with IPV. Gagne (1992) depicted incidents in which neighbors ignored abuse by a partner (or sided with the perpetrator), blaming the woman for the relationship conflict. Riddell et al. (2009) also found that self-blame was reinforced by the community including priests, police officers, and neighbors. Thus, many women blamed themselves for not stopping the violence, or for causing it in the first place. In many instances family, rather than community, played a key role in what steps were taken in regards to IPV.

**Lack of Anonymity**

Another commonality discovered through Appalachia and rural setting research was that of a lack of anonymity. Although there were many sophisticated urban centers (Evans et al., 2004) that were housed within the geographic gate of Appalachia, this region was mainly comprised of collections of smaller towns and communities. Because of this there was a general small town feel (Contos Shoaf, 2004). Pruitt (2008) stated, “population sparseness tended to produce high-density of acquaintanceship” (p. 362). It was comforting to have this social cohesion. However, there was also an underlying belief that knowledge of violence should be kept in the family, supplemented with a fear that information related to IPV would be exposed to neighbors and friends within the community (Contos Shoaf, 2004; Wendt, 2009). Because of the paradox of rural privacy, secrecy around the issue of IPV became accepted within households (Hilbert & Krishnan,
2000), and, in some communities, the behavior ingrained as normal (Contos Shoaf, 2004).

Confidentiality concerns further complicated help-seeking attempts (Goeckermann, Hamberger, & Barber, 1994; Logan et al., 2004). Oftentimes, those individuals who provided support, such as police officers and social workers, knew the person seeking help, or were connected to the family (Gagne, 1992; Websdale, 1995). Encountering someone familiar while in the help-seeking process could be traumatizing. In the study conducted by Logan et al. (2004), rural women expressed deep concern about “everybody knowing everybody,” it being impossible to get “anonymous” help (p. 47), and people “knowing [their] business” (p. 57). These sentiments were paralleled in Gavin’s (2008) research, and a study conducted in Appalachian Ohio. The distrust of those working in environments where a woman turned to for assistance with IPV greatly diminished the prevalence of seeking community support (Contos Shoaf, 2004; Logan et al., 2004; Pruitt, 2008) for IPV. The lack of privacy in rural Appalachian communities often led to a situation where the victim was ashamed to leave the abusive relationship (Fiene, 1995; King & Roberts, 2011; Logan et al., 2005). In addition, seeking help was viewed as a technique that could likely end in stigmatizing the victim, perpetrator, and the entire family (Mulder & Chang, 1997).

**Prevalence of Weapons**

Access to a gun was considered a risk factor to family violence taking place (Adams, 2007; NIJ, 2009). The use of weapons and accouterments, such as guns, bows, knives, and animal snares, had long been accepted in the rural culture. Grama (2000)
suggested more weapons existed in rural areas because of the purpose they served for obtaining food. These various items could be used for hunting, fishing, trapping game, and safety in the home from intruders (Gagne, 1992). These items were also used to pose a serious threat to women being abused by their partner, or anyone who attempted to intervene. Goeckermann et al. (1994) explained that the use of weapons such as these was tangible in that the item was used to hit, strike, or actually injure the victim. However, the simple act of cleaning a gun during an argument was a covert psychological threat in action (Websdale, 1995). Recently, Appalachian IPV shootings have been highlighted in the media (Galofaro, 2011; Lowe, 2014; Mims, 2014). These present day events reaffirmed the early findings supporting the notion that weapons presence and IPV severity in Appalachia were potentially related.

**Poverty and Educational Attainment**

Appalachia in its entirety has begun to make great strides toward being comparable to national averages by diversifying economic sources and reducing unemployment and poverty (ARC, 2014a). Differences in poverty levels change from year to year, but Appalachia poverty continues to remain higher than in the country as a whole (Thorne et al., 2004). Unemployment rates in Appalachia are higher than the national average, and median household incomes are only two-thirds of the national average (ARC, 2013; United States Census Bureau, 2010). With lost employment and lower income, the gender norm of males being the family breadwinner was challenged. This, in combination with financial struggles, unemployment, and living in economically disadvantaged areas, led to increased conflict between partners (Gagne, 1992; NIJ, 2009),
and severity of IPV (Busch & Rosenberg, 2004; NIJ, 2009; Few, 2005). Violence against women in intimate relationships was more likely to be repeated in disadvantaged neighborhoods (NIJ, 2009). Conversely, higher socioeconomic status was associated with decreased IPV (Abramsky et al., 2011). Findings unmistakably proved that poverty increased stress, influenced IPV, and reduced overall health.

With poverty being linked so directly to so many negative health consequences, the ARC recognized the importance of identifying counties that were experiencing the highest rates of economic distress. At the end of 1981, the Distressed County Initiative was established (Thorne et al., 2004). This proposal allowed for the creation of an index-based county economic classification system that would be used for monitoring economic status of every U.S. County. Three-year average unemployment rates, per capita market income, and poverty rate indicators of each county were compared with national averages to assess economic status, and assign a composite index value for each county. Each county in the nation is then ranked, based on its composite index value, with higher values indicating higher levels of distress. There were five economic level designations: distressed, at-risk, transitional, attainment, and competitive (ARC, 2014a). Prior to this initiative, government funding was funneled into Appalachian communities with the greatest opportunity for growth and development. These areas tended to be the urban and metropolitan cities that were situated within the region, as opposed to the rural, struggling communities (ARC, 2014a) that made up the majority of the area. This lack of support for poorer sections in the territory further influenced the depression of the region (Thorne et al., 2004). Through the creation of the classification system, the distribution
of financial assistance evolved, diversifying the economic make-up of the region. Refer to Table 3 for specific information on economic designations. Since the region was defined by shared economic struggles (ARC, 2014a; Keefe, 2005), it was difficult to separate the culture of poverty (Payne, 2013) from Appalachian culture. It was far easier, however, to connect poverty to lack of educational attainment.

Table 3

*Appalachian County Economic Levels*

<table>
<thead>
<tr>
<th>Level</th>
<th>Definition</th>
<th>All Appalachian Counties</th>
<th>Ohio Counties</th>
<th>Study Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distressed</td>
<td>Most economically depressed counties. Rank in the worst 10% of the nation's counties.</td>
<td>93</td>
<td>7</td>
<td>Noble Morgan</td>
</tr>
<tr>
<td>At-Risk</td>
<td>At risk of becoming economically distressed. Rank between the worst 10% and 25% of the nation's counties.</td>
<td>108</td>
<td>11</td>
<td>Guernsey Perry Harrison Monroe</td>
</tr>
<tr>
<td>Transitional</td>
<td>Transitioning between strong and weak economies. They make up the largest economic status designation. Rank between the worst 25% and the best 25% of the nation's counties.</td>
<td>206</td>
<td>14</td>
<td>Muskingum Belmont Coshocton</td>
</tr>
<tr>
<td>Competitive</td>
<td>Able to compete in the national economy but are not in the highest 10% of the nation's counties. Rank between the best 10% and 25% of the nation's counties.</td>
<td>10</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Attainment</td>
<td>Economically the strongest counties. Rank in the best 10% of the nation's counties. Equal to US averages on all 3 indicators.</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

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Educational attainment in the Appalachian region lags behind national averages with less individuals completing high school and college than in the United States as a whole (ARC, 2014a). Economically disadvantaged counties typically had the lowest college graduation rates in the United States (Haaga, 2004; Nemeth et al., 2012). This was a concern not only because of the direct impact education had on economic prosperity, but because research indicated education served as a risk factor for both IPV perpetration and victimization (CDC, 2013). When compared to situations where neither partner completed secondary education, achievement of secondary education by either partner was associated with decreased IPV (Abramsky et al., 2011; GWHO, 2005). If both partners had completed this level of schooling, there was an even further reduction (Abramsky et al., 2011) in IPV. It was also suggested that women with higher educational achievement had a greater range of choice in partners. With this came more ability to choose to marry or not. Also, women were more able to negotiate greater autonomy and had more control of resources within the marriage (GWHO, 2005).

**Substance Use**

Because the Appalachian risk factors for IPV paralleled many of the risk factors for substance use disorders (Kinney, 2014), exploring the topic of substance use and IPV was necessary to paint a complete risk factor picture. Research findings discussed in the literature successfully identified a correlation between IPV perpetration or victimization and substance use (McKinney, Caetano, Rodriguez, & Okoro, 2010). The link, however, is etiologically very complex, multifaceted, and controversial (Cavanaugh & Gelles, 2005; Collins & Spencer, 2002; Flanzer, 2005; Foran & O’ Leary, 2008). Is substance
use a cause of IPV, a mechanism of the violence, or both? Scholars attempting to answer this question emphasized the type of substance involved, the importance of social and contextual factors that likely influenced use (Shannon, Havens, Mateyoke-Scrivner, & Walker, 2009), and validated the importance of considering individual characteristics.

Analyses of findings from the National Epidemiological Survey on Alcohol and Related Conditions were conducted to learn more about substance use and the IPV connection. Results revealed that alcohol-use disorders and cocaine-use disorders were most strongly associated with IPV perpetration, while cannabis-use disorders and opioid-use disorders were most strongly associated with IPV victimization (Afifi, Henriksen, Asmundson, & Sareen, 2012; P. H. Smith, Homish, Leonard, & Cornelius, 2012). These particular studies added to the knowledge of which specific substances may be most directly related to IPV, and further supported previous findings that alcohol was the central substance associated with IPV (Flanzer, 2005; Foran & O’ Leary, 2008).

Alcohol use has been proven to affect brain pathways and potentially influence aggression or violence (National Institute of Alcohol Abuse and Alcoholism [NIAAA], 1997). By weakening brain mechanisms that normally restrain impulsive behaviors, alcohol impairs information processing (Kinney, 2014; NIAAA, 1997). Because of this interruption, alcohol use could lead a person to misjudge social cues (NIAAA, 1997), making them more likely to react violently towards an intimate partner (Curran & Renzetti, 2001). For example, Coker et al. (2000) found that male partner’s drug or alcohol use, as recounted by his partner, was the strongest correlate of current violence. Alcohol use was also found to reduce an individual’s ability to manage innate aggressive
tendencies (Maldonado, Watkins, & Dilillo, 2014) affecting the gravity of the violence. McKinney et al. (2010) compared violence severity against alcohol involvement. Those women who had experienced severe (vs. mild only) IPV were more than twice as likely to report alcohol involvement. Additionally, the risk of IPV occurring was further intensified when both partners abused alcohol or other drugs (Collins & Spencer, 2002; Testa et al., 2012). As such, alcohol-induced violence could be more severe and resulted in greater injury (Women’s Rural Advocacy Programs [WRAP], n.d.) than did violence without an alcohol presence.

Alcohol consumption was also used as a vehicle for responsibility transfer and a victimization coping strategy. A perpetrator may have attempted to use his or her alcohol consumption to avoid taking responsibility for violent behavior (WRAP, n.d.), whereas a victim may have justified the behavior by rationalizing the effects of use as being the instigating agent for the violence (Flanzer, 2005). Women have also been found to begin to abuse substances as a way to escape the reality associated with experienced IPV (Campbell, 2002). Shipway (2004), for instance, found that women who had been victimized were 15 times more likely to abuse alcohol and 9 times more likely to abuse drugs than women who had not faced IPV. Although there was no consensus on the causal relation of substance use and IPV presented in the literature, substance use was regarded as a risk factor for IPV perpetration and victimization, and a consequence of IPV experience. All of the presented risk factors could be considered as modifying factors to IPV beliefs and behaviors.
Appalachia-Specific Violence Research

Groundbreaking research conducted by Gagne (1992) has consistently been cited in the literature on IPV in Appalachia. She immersed herself in a small, rural central Appalachian community where she spent time with four women and their families. She employed a context-specific approach to investigate the relationships among culture, social structure, and violence in the control of women in this community. She examined the lives of these women by analyzing the impact of geography, gender ideologies, cultural norms/values, employment opportunities, and police protection. In addition, she investigated the violent and nonviolent ways their partners used to control them. Gagne stated that the context-specific approach was used to demonstrate that social control was dependent on a culture and social structure which condoned men’s domination of women and that without cultural acceptance and structural support for men’s authority over women, violence would be less effective as a means of social control. (p. 387)

Control was divided into three groups. Normative control referred to socially accepted ways in which women’s lives were constrained by norms and beliefs. This included objectification of women. Persuasive control took place through nonviolent means including repeated verbal requests to carry out tasks, forced parenthood, sexual divisiveness, and the use of stereotypes to demean women. Lastly, violence was presented as a form of social control. This included threats of and use of physical assault or weapons to instill fear in an intimate partner.
Gavin (2008) conducted face-to-face interviews with 21 women from rural central Appalachia who had experienced. Six themes emerged that included: self-preservation; self-sacrifice; no one will help; no one can help; it’s my fault; and everyone will know. Each of these themes offered valuable insight into an Appalachian woman’s experience with IPV. Self-preservation and self-sacrifice resulted because participants believed lives depended on it. This belief stemmed from not only past experiences, but actual threats by the abusive partners (threatened death or to take away or hurt children). These decisions were made in order to protect personal and familial safety. Research conducted in a rural setting by Bhandari, Bullock, Anderson, Danis, and Sharpes (2011) revealed that women also stayed in relationships to protect an unborn child. This offered another connection between rural and Appalachia research. Gavin (2008) also learned that some women were actually stabbed, shot, and beaten when attempting to leave a violent relationship. These findings mimicked previous findings that showed leaving a relationship could ignite severe violence (Campbell et al., 2002; Campbell et al., 2007).

Help-seeking was also hindered by the feeling that no one would or could help. Women felt if they were not beaten, there was no reason to seek assistance. Additionally, when seeking help from family members, women were turned away and ordered to “work on the marriage” (Gavin, 2008, p. 98). Women also felt the closeness of their communities hindered their ability to use police services because the abuser could be friends with the police. Intriguingly, 19 of the 21 participants described their relationships in patriarchal terms (Gavin, 2008). The ability of abusive men to control their partners was increased by these belief systems. Women were controlled and
isolated by being locked in rooms and tires were removed from cars. Men controlled who, when, and how often their partners could spend time outside the home and with their friends and family. These findings were similar to seminal works (Gagne, 1992; Websdale, 1995) on IPV in Appalachia and rural literature (Mulder & Chang, 1997). Additionally, many individuals were unaware of the resources available in the community, lending to the idea that no one can help.

Lastly, the sense of failing or being the reason why the abuse was occurring was ingrained in the minds of the victims, and to some extent, supported by the cultural ideals of the communities in which they lived (Gavin, 2008). Failure was a theme that connected Appalachian-specific IPV research to rural findings once again. For example, Riddell et al. (2009) conducted research with rural women and found that failure was a theme strongly related to fear. Many women knew being in a violent relationship could be deadly, but feared failing themselves, their children, their family, their friends, and their relationship. Gavin (2008) also found that women felt information was discussed about their experiences throughout the community. They felt there was no one to trust since personal information seemed to be made privy to the community, even when discussing it with a professional. Again, this finding replicated previous research on lack of anonymity (Gagne, 1992; Websdale & Johnson, 1998).

One of the larger scale studies conducted in Appalachia took place over a five-year span. Data were gathered through conducting 52 focus groups throughout 24 Appalachian counties across 10 states (Denham et al., 2004). Each set of focus groups had a different agenda. The main focus group was comprised of women, and investigated
ways Appalachian women engaged family members in health promotion activities. The remaining focus groups were conducted with men and adolescents respectively to gain a better understanding of the woman’s view of health by obtaining additional perspectives from other family members. Information shared revealed a strong and frequent focus on family, with very little emphasis placed on other life domains such as friendships, school, or work. Mothers played an important role in the health of all family members, both in protecting and endangering.

Violence did not end when women became pregnant. In fact, rural women, specifically those living in the Appalachian region, were at a higher risk for experiencing IPV during pregnancy (Dye, Tolliver, Lee, & Kenney, 1995; Johnson & Elliott, 1997). Because of the intense consequences of IPV during pregnancy, considerable attention was paid to this topic. Bailey and Daugherty (2007) designed a research study on IPV during pregnancy and health behaviors that would allow for the collection of data using several measures. The goal of their research was to examine the prevalence of different types of IPV taking place during pregnancy among southern Appalachian women ($n = 104$). They also wanted to investigate the association between both physical and psychological IPV and negative health behaviors (including substance use). Data revealed that 81% of participants reported some type of IPV during the current pregnancy (28% reported physical IPV, and 20% reported sexual violence; Bailey & Daugherty, 2007). When evaluating health behavior status and IPV experience, physical IPV during pregnancy was associated with significantly increased rates of alcohol, marijuana, and harder illicit drug use around the time of conception. Psychological IPV experience
during pregnancy correlated with an increased rate of alcohol use around the time of conception. These findings demonstrated the link to experiencing IPV and substance use as a potential consequence of the violence. Additionally, Denham (2003) conducted qualitative research in two Appalachian Ohio counties consisting of 338 total participants. Past and current abuse experiences of 91 pregnant women (or not more than six months postpartum) and their healthcare workers (HCWs), such as registered nurses, social workers, and administrators ($n = 247$), were measured. The majority of the HCWs (80.2%) suspected clients might have experienced IPV, demonstrating the possible prevalence of IPV during pregnancy.

In some instances pregnancy was a result of being raped by an intimate partner, and left open an opportunity for the perpetrator to blame the abused partner for this occurrence. Often, it was assumed that, because of ingrained cultural mores about women, the practice of “blaming the victim” was also commonplace in the Appalachian region. Haywood and Swank (2008) explained that rape myths were a set of beliefs that rationalized why rapes occurred in a manner that absolved the perpetrator of guilt and blamed the victim. To explore rape attitudes of students that did or did not self-identify as Appalachian, 512 college students were surveyed in Eastern Kentucky. The study upheld previous claims that hostility toward women was a strong predictor of victim blame. It was apparent that Appalachian self-identity influenced students’ perception of sexual aggression, but not in the manner existing literature suggested. Findings revealed that self-identified Appalachian students were less likely to criticize rape victims. If a self-identified Appalachian student had previously been a victim of rape, he or she was
again less likely to condemn rape victims (Haywood & Swank, 2008). Additionally, this collection of Appalachian students was also more likely to reject modern sexism, was more likely to stay in college longer, and had little animosity toward women. The latter findings demonstrate a need to continue to challenge existing literature to gain a modern understanding of Appalachia. However, it must be acknowledged that much literature does still support the original findings.

In 2003, The State of Ohio made it a priority to meet the needs of individuals in Appalachian counties who had experienced IPV (Contos Shoaf, 2004). To begin to make this priority a reality, the Rural Domestic Violence and Child Victimization Grant was offered. The Ohio Office of Criminal Justice Studies (OCJS) conducted qualitative research, through this grant, to assess the perceived needs and assets of IPV victims in three counties (Contos Shoaf, 2004). Each county participated in one focus group. The discussions were centered on three main topics including: Appalachian culture and traditions impacting women’s ability to seek and receive services; services that were available in Appalachian Ohio counties and how helpful they were; and services that were needed most by women in Appalachian Ohio. Multiple pertinent themes emerged from this discourse. There was a strong focus on keeping IPV a secret within the family. Being immersed in this environment was perceived to instill into children a sense of IPV as a normalcy in life. Just as in Gagne (1992), Websdale (1995), and Gavin’s (2008) research, IPV issues were dealt with internally, privacy was a concern when seeking help, and a sense of social isolation existed because there was limited support sought outside the family.
Health Belief Model

As discussed in Chapter 1, the HBM was developed as a theory of health behavior that examines personal beliefs (perceptions) and intentions related to health behavior (Hochbaum, 1958). The HBM is used to predict why individuals take action in regards to screening for, prevention of, and control of health conditions (Glanz et al., 2008). The original foundation of the instrument was based on value expectancies. The desire to avoid illness or get well (value) was intertwined with the belief that a specific health action available to a person would prevent illness (expectancies; Strecher & Becker, 1997). Janz and Becker (1984) added that this model flourished when value was placed on health. Thus, the more that health professionals can know about Appalachian values in order to raise awareness about the importance of prevention and ending IPV, the greater the potential for applying the HBM to violence prevention research.

Health Belief Model Components

Perceived susceptibility. Perceived susceptibility relates to an individual’s opinion of his or her risk of contracting a health condition. Research noted that people tended to underestimate their own susceptibility to disease (Redding, Rossi, Rossi, Velicer, & Prochaska, 2003), possibly affecting health-related behavior. Rosenstock (1974a) explained that perception of susceptibility occurred on a spectrum, fluctuating based on individual beliefs. At one extreme was the individual who denied any possibility of acquiring a given condition. At the center of the continuum was a more moderate, dichotomous position. There was belief admittance of the possibility a disease could occur with an understanding that there was a possibility that contracting a disease
was also not likely to happen. Finally, a person could express a feeling of real vulnerability to developing the condition, whether the probability was genuine or perceived. Susceptibility was shown to be strongest as a predictor of preventive health behaviors (Janz & Becker, 1984).

**Perceived severity.** Perceived severity relates to perceptions concerning the seriousness of contracting an illness, or leaving a condition untreated. However, no matter the severity of a condition, individuals were less likely to act if they did not perceive themselves to be susceptible (Becker, 1974; Rosenstock, 1974b). If a person believed himself or herself to be susceptible to a condition, and believed the condition to be serious, a perceived threat (Strecher & Becker, 1997) was identified. This combination was often a force toward action. In the case of IPV, a woman may not recognize her susceptibility to experiencing IPV, or may not feel the abuse she experienced was severe enough to seek help. Additionally, a person did not have to believe a condition to be simply medically dangerous. It could also be seen as severe from a more complex analysis than just from the physiological perspective. Janz and Becker (1984) explained that evaluation of both medical consequences (pain, disability, death, etc.) and social consequences (vocational, interpersonal relationships, etc.) took place. Perceived severity was often the least powerful predictor, but was strongly related to sick-role behavior (Champion, 1984).

**Perceived barriers.** The willingness to act to prevent or manage a condition is determined by the benefits to taking action (Hochbaum, 1958). Taking action involved cognitively weighing the personal costs associated with the behavior against the benefits
expected as a result of engaging in the behavior. If the cost (barrier) outweighed the benefits to acting, the behavior was not altered (Hochbaum, 1958). For example, an individual may believe that a given action would be effective in reducing the health threat, but at the same time, the action itself could be seen as inconvenient, expensive, unpleasant, painful, or emotionally taxing. These negative aspects of behavior change served as impediments to action, producing conflicting motives of avoidance (Rosenstock, 1974a). Perceived barriers have been found to be the most powerful single predictor across all studies and behaviors (Strecher & Becker, 1997). In Appalachia, some identified barriers included lack of services (or knowledge of services), poverty, and ingrained cultural values which supported IPV behaviors. These barriers may be perceived as too difficult to overcome.

**Perceived benefits.** A person’s belief of susceptibility and severity produces a force leading to action, but it does not dictate the course of that action (Rosenstock, 1974a). A solution is not accepted if the recommendation for addressing the issue is not perceived as practical and efficacious (Janz & Becker, 1984). The benefits to making a behavior change need to be more advantageous than not making the health modification. Consider the following scenario. A woman is involved in a violent relationship with her partner. IPV is not merely a matter that she could rectify by simply walking away from the situation (Libuku et al., 2008). This woman must consider and balance many factors including children, finances, housing, and personal safety. In this instance, does the benefit of acting outweigh the cost to remain in this position? Perceived benefits have shown to be the strongest predictor for sick-role behaviors (Janz & Becker, 1984).
Self-efficacy. Bandura (1977) defined self-efficacy as “the conviction that a person can successfully execute the behavior required to produce the outcome” (p. 79). Self-efficacy is a person’s belief in his or her own ability to carry out a task. This construct was not initially a component of the HBM, but was integrated in 1988. Rosenstock et al. (1988) explained that self-efficacy was added to the model when focus shifted from screenings and receiving immunizations to the managing of chronic illness. Getting a screen (possibly a single event) to prevent an illness took less self-efficacy, in general, than did making lifelong changes. Consider how self-efficacy needs would differ for a person getting a yearly flu vaccination compared to a person considering leaving a violent relationship. Much more confidence in a person’s ability would be necessary to succeed in the latter health behavior. Where the acquisition of skills or complex lifestyle modifications were required to maintain or restore health, enhancement of self-efficacy was most likely to be essential for success (Champion, 1984; Rosenstock et al., 1988). When considering addressing IPV issues, high self-efficacy played a major role in help seeking, leaving an abusive situation, and ultimately, living fruitfully in a more healthful environment.

Cues to action. Hochbaum (1958) believed the combination of susceptibility and severity provided the force to act and the “perception of benefits (less barriers) provided a preferred path of action” (Rosenstock, 1974a, p. 332). However, it was also suspected that an instigating agent needed to ensue to set the process in motion. This was the concept of cues to action. Individual cues could be internal (symptoms, guilt, aspiration, etc.) or external (marketing campaigns, medical visit reminder postcards,
recommendation of family/friend, etc.; Janz & Becker, 1984; Rosenstock, 1974a). The level of intensity needed to fuel a response was believed to vary. Redding et al. (2003) suggested that when perceived threat is high, a very minor stimulus may be all that is needed to initiate action. However, more prevailing spurs may be needed to prompt a behavior with a low perception of threat.

Of all of the components in the HBM, “cues to action” is arguably the least studied. Often excluded from HBM research (Rosenstock, 1974a), there was limited knowledge on the specific role cues to action played in predicting health behaviors (Janz & Becker, 1984). Cues may serve as a compliance behavior motivator (Bloom Cerkoney & Hart, 1980), or be a trigger that ignited the decision-making process (Rosenstock, 1974a). The variance in the types of cues that may trigger action wavered drastically including fleeting and barely conscious cues (Glanz et al., 2008). A child in the home witnessing IPV, or simply seeing an IPV helpline phone number, may be a trigger (cue to action) for a woman to seek assistance. Thus, there is room to systematically study cues to action to empirically demonstrate what cues to action are most important (Strecher & Becker, 1997; McNeill, Dorgan, & King, 2003) for health behavior change.

**Additional variables.** Another important component of the HBM is modifying variables. These are factors that affect a person’s perception of susceptibility, severity, barriers, and benefits, and indirectly influence health-related behavior (Redding et al., 2003; Strecher & Becker, 1997). These attributes led to engagement in preventive behaviors, or abstention (Sullivan, Pasch, Cornelius, & Cirigliano, 2004). Characteristics such as age, educational attainment, past experience (Galloway, 2003), and knowledge
contributed to perceptions and intentions. These individual characteristics modified self-efficacy (Redding et al., 2003) and the four main constructs of the HBM, which in turn, influenced expectations. Modifying variables of a woman experiencing IPV could have influenced her health-related decisions.

Motivation is an additional variable within the HBM that is often considered, but less frequently discussed. Repeated references to procrastination, apathy, and forgetfulness were noted in early investigations, sparking consideration of additional variables that could influence intention. Becker and Maiman (1975) explained, “if desire to reduce personal susceptibility or severity represented the valence or ‘pull’ towards action, then health-related motivation may be seen as the ‘push’ factor in compliance” (p. 18). The original HBM focused mainly on negative aspects of health. However, it was later believed that positive health motivations existed and accounted for some portion of compliance behavior (Becker & Maiman, 1975). When considering acceptance of lifestyle modification or rejection, the motivation variable has been shown to function as an important role in the analysis process. See Figure 1 for a review of the Health Belief Model.
Figure 1. Health Belief Model

Credibility of the Theory

The seminal research Hochbaum (1958) conducted about tuberculosis screening generated valuable evidence on perceptions, health behavior, and led to the development of the archetype that would become the original HBM. Of those surveyed in this initial research, 82% of respondents who had the belief that they were both susceptible to contracting tuberculosis and thought there was a benefit to early detection, had received at least one voluntary chest x-ray during an identified time period prior to the interview. Of those individuals who did not share the belief about susceptibility and benefit of screening, only 21% had obtained a chest x-ray (Hochbaum, 1958; Rosenstock, 1974a) during that same time period. These findings supported the predictive nature of the perceived susceptibility and perceived benefit variables of the theory. Additionally,
perceived susceptibility was proven to be the strongest indicator of action with perceived severity a construct still in question (Rosenstock, 1974a). Since the publishing of these findings and introduction of the HBM constructs, the HBM has been consistently used to examine intentions, motivation, and behaviors (Glanz et al., 2008). Consequently, the effectiveness of individual constructs and the theory as a whole have been scrutinized. One of the most in-depth evaluations of instrument efficacy was organized by Janz and Becker (1984). They spearheaded a critical review of 29 HBM-related investigations conducted between 1974 and 1984. The results of each study were subsequently combined with earlier findings to permit an overall assessment of the model’s performance. The analysis provided “very substantial empirical evidence supporting HBM dimensions as important contributors to the explanation and prediction of individual’s health-related behaviors” (p. 41).

Although the literature is replete with arguments in support of the HBM, the theory has also been subject to criticism. Maiman, Becker, Kirscht, Haefner, and Drachman (1977) elucidated that the HBM constructs had been operationalized differently by various canvassers attempting to measure these beliefs. Less research had been performed to ascertain the predictive value of combinations of two or more beliefs, and the joint influence on behavior. Similarly, those critiquing research on the HBM voiced concern about the reliability of measurement scales (Champion, 1984; Maiman et al., 1977). It is suggested that individual construct reliability and validity analysis needed to take place to ensure appropriate levels of consistency were achieved (Glanz et al. 2008).
Through examination of the literature, it became apparent that more emphasis had been placed on conducting retrospective studies (Rosenstock, 1974a; Strecher & Becker, 1997). In the case of a retrospective study, data were collected on perceptions of past experiences in one phase without future follow up (Becker et al., 1977; Euser, Zoccali, Jager, & Dekker, 2009) to learn what behaviors actually transpired. This was how Hochbaum (1958) performed his preliminary research on tuberculosis screenings in 1952. Prospective study designs were less often performed because of the difficulty with future re-examination of participant behaviors (Euser et al., 2009). However, by increasing the amount of prospective studies, further evaluation of the actual predictive capabilities of the individual components and the model as a whole could occur.

Even with the above-mentioned improvements and considerations, there was ample research to prove the internal consistency of each HBM construct individually. These findings, when taken together, provided reasonably strong support for the HBM (Becker et al., 1977) as a whole. Additionally, Janz and Becker (1984) illuminated the fact that the HBM was a psychosocial model. Thus, predicting human behavior had its limitations. The HBM could only account for variance in individual’s health-related behaviors based on attitudes and beliefs of those parties contributing to the research. This left the door open to continued debate and possible future advancements of the HBM.

**Health Belief Model Application (Violence-Specific Research)**

Typical HBM research has been categorized into three main areas of focus including preventive behaviors, sick role behaviors, and clinical use (Conner & Norman,
Common health topics included diabetes, cancer, smoking cessation, sexual behaviors and related infections/diseases, and vaccinations/immunizations. Far fewer studies have been conducted on interpersonal violence prevention using the HBM as the theoretical underpinning (Cornelius et al., 2009), with even less research conducted on prevention of or help-seeking for IPV.

Through the lens of the HBM, Libuku et al. (2008) explored perceptions of Namibian women on why pregnant women endure IPV. Maternity clients (n = 184) were approached during their recovery period in the postnatal ward of a local hospital, and asked various hypothetically phrased questions about IPV. Researchers found that 82.5% of respondents believed pregnant women stayed in a violent relationship to benefit their child(ren). Secondarily, 80% of respondents indicated that women tended to endure violent relationships because they had nowhere else to go, as they were economically dependent on their partner. Interestingly, the findings for this study presented support of the perceived benefits and self-efficacy constructs from an antithesis angle. They found that not taking action to address IPV was the result of a conscious decision based on personal beliefs that action would not produce beneficial results. Libuku et al. (2008) stated, “the observed behavioral pattern indicated an embedded perception, a belief system that influenced action or inaction” (p. 3). For instance, it was determined that some women believed benefits existed in continuing to bear IPV, such as financial security. Others believed that they would incur certain liabilities, primarily cultural or religious in nature, should they not be able to endure violence. Although the latter example clearly demonstrates the perceived barriers construct, conversely it represented
benefits to remaining in the relationship, which included maintaining community status and interpersonal connections outside the violent situation. Also discussed was IPV literature evidence that the psychological impact of IPV undermined victim self-efficacy. It was noted, however, that some women believed they were coping with IPV by simply enduring the situation (Libuku et al., 2008). This represented high self-efficacy in tolerating violence. In the case of the Namibian study, taking action against IPV was seen as less beneficial than remaining in the precarious situation. Based on these findings, Libuku et al. stressed the importance of gaining insight into health belief systems held by women regarding endurance of, and the accessibility of community resources. Because of the role culture has played in addressing IPV, it was evident that simply having IPV services did not mean they were useable to the community. The research conducted by Libuku et al. provided perspective into IPV matters in Appalachian Ohio, especially regarding cultural values and perceived benefits of not seeking help when in a violent relationship.

Cornelius et al. (2009) examined intentions to participate in a dating violence prevention program for the first time in the literature. Results revealed that income and gender were related to intention. Female participants and lower income participants had a greater intention to participate in dating violence prevention programs. Perceived susceptibility and perceived benefits had a strong correlation to intention. Participants who perceived benefit from participation, and participants who perceived a higher likelihood of experiencing dating violence, had higher participation intention scores. When evaluating prevalence of violence, 83% of participants stated experiencing
psychological aggression, and 38% stated experiencing physical aggression (Cornelius et al., 2009). When examining HBM and experience of physical or psychological aggression, it was determined that those participants who had experienced aggressions also had higher rates of perceived susceptibility. The more exposure to aggression, the greater the susceptibility perception was. The more psychological aggression experienced, the higher the perception of barriers to attending dating violence prevention programs was. This study provided evidence for the impact experiencing violence played in seeking help, and posited the importance of devoting more attention to examining the role the HBM can play in understanding the prevention of interpersonal violence.

Although conducting research to learn about health perceptions and behavior intentions was routine in the literature, the HBM has also been used to develop strategies to address behavior and health concerns (Rosenstock et al., 1988). For example, a local family planning clinic in a public health department utilized the HBM as an organizational framework to create an IPV screening intervention for clinic staff (Shattuck, 2002). Each component of the HBM was examined, the literature reviewed, and an IPV screening curriculum developed. Perceived susceptibility was represented by the inclusion of statistics on IPV rates on national, state, and local levels. Dialog on the consequences of IPV signified perceived severity. Perceived benefits to implementing an IPV screening protocol focused on the fact that IPV was preventable, and the role clinic staff could play in advocacy. Barriers to implementing the process were discussed with an informational pocket card being distributed to staff. This card contained information on framing statements, screening questions, appropriate responses, and the 24-hr crisis
line number offered through the clinic. This card served as a means to reduce anxiety with screening clients for IPV. Reminders and instructions on how to screen clients were posted in various locations for staff to see as cues to action. Finally, to confront self-efficacy in screening clients, competence and expertise of nurses were stressed, and role play activities practiced. In a four-week period following this intervention, screenings increased from zero to 182 women (61% of clientele seen). Additionally, staff detection of IPV increased from 0% to 11.5%. Shattuck (2002) concluded that public health departments played a significant role in detecting IPV and assisting with help seeking for the issue. The following chapter presents the methods for the current study and information about the pilot study.
CHAPTER III

METHODOLOGY

Purpose of Study

The purpose of this study was to use a quantitative research approach to investigate IPV in nine Appalachian Ohio counties. By applying the constructs of the HBM, the perception of severity of physical aggression, sexual aggression, psychological aggression (expressive aggression and coercive control), and stalking behaviors was explored. Demographics including age, household income, educational attainment, environment (rural, suburban, and urban), and self-reported lifetime exposure to IPV were examined to determine if a relationship existed between the identified independent variables and attitudes toward IPV behaviors. Also included in the analysis was Appalachian self-identity. Accepting or rejecting this label may be an influencing factor in this area related to IPV beliefs and behaviors, and allows for investigation of the Appalachian culture concept. Findings from the pilot and current study shed light on the diversity in the region, and also highlighted IPV risk factors that are present in the regions of Appalachia being studied, specifically related to perceptions of women living in this area.

Location of Study

The location for this research was Southeastern Appalachian Ohio, which is in the foothills of the Appalachian Mountains. Currently, 32 out of 88 eastern and southern Ohio counties are included in the defined Appalachian region. The pilot study for the current research examined one Appalachian county (Perry), and the large-scale study
investigated eight additional Appalachian counties in Southeastern Ohio including Belmont, Coshocton, Guernsey, Harrison, Monroe, Morgan, Muskingum, and Noble County.

**Instrumentation**

The *Perceptions of Intimate Partner Violence Survey* (PIPV) designed for this research study (Refer to Appendices B & C) was developed by adapting two previously existing surveys: the CDC’s *NISVS* (Black et al., 2011; Breiding et al., 2014) for the IPV subscales, and the *Relationship Beliefs and Attitudes (RBA)* survey created by Cornelius et al. (2009) for the HBM subscales. The *NISVS* instrument was considered in the public domain, so permission was not needed to adapt the IPV items. Permission was obtained electronically from Dr. Cornelius for the use of the RBA instrument. Additionally, previously published studies utilizing the HBM were referenced to further develop the HBM subscales (Bandura, 2006; Champion, 1984; Chapin, 2011; Kim, Ahn, & No, 2012; Kim, Horan, Gendler, & Patel, 1991; Wong et al., 2013). These studies were not directly related to the topic of the current study, but had explored the constructs of the HBM and/or presented instrument development details that were insightful for item construction.

**National Intimate Partner and Sexual Violence Survey**

*NISVS* was the first national survey dedicated exclusively to investigating IPV behaviors as a public health concern. The *NISVS* instrument was developed by the NIJ and the Department of Defense, with the *National Violence Against Women Survey* serving as foundation for the *NISVS* (Black et al., 2011; Breiding et al., 2014). The
primary objectives of the NISVS focused on learning about prevalence, possible victims, patterns of violence, traits of perpetrators, and consequences of experiencing IPV (Black et al., 2011).

*NISVS* examined five types of intimate partner violence: sexual violence (SV); physical violence (PV); stalking victimization; psychological aggression; and control of reproductive or sexual health (Black et al., 2011). The survey linked each form of violence to a perpetrator to explore characteristics of perpetrators. Lifetime prevalence was examined, with an emphasis on violence experienced in the past 12 months prior to taking the survey. Additionally, items existed to explore the length of time the abuse occurred and the incidence of the violence. Information was gathered on the impact of the abuse (such as missing work, school, hospital visits, etc.) while inspecting long term effects of the abuse both on physical and mental health.

The National Center for Injury Prevention, violence prevention division, which is a department housed within the Centers for Disease Control and Prevention, launched the inaugural survey in 2010. Adult women and men (aged 18 and up) who spoke English or Spanish were surveyed to gather data characteristic of the United States. *NISVS* was conducted through the use of national random digit dial, landlines and cellphones. These statistics were also used to probe individual state results, making the *NISVS* a nationally representative survey. All 50 states and Washington D.C. were represented in the first sweep of the *NISVS* survey that took place from January 22, 2010, until December 31, 2010. There were 18,049 interviews conducted with 9,970 women and 8,079 men.
resulting in 16,057 interviews being fully completed (9,086 women & 7,421 men; Black et al., 2011).

Currently, there is limited national information available on IPV, sexual violence, and stalking prevalence rates of lesbian, gay, and bisexual individuals. The NISVS was the first nationally representative survey with a purposeful intention of gathering information about IPV based on sexual orientation. Initially, respondents were classified by their sexual activity, but this method was adjusted to offer respondents the opportunity to self-identify as heterosexual, lesbian, gay, or bisexual (Walters et al., 2013). The sample included 96.5% females identifying as heterosexual with 2.2% as bisexual, and 1.2% as lesbian. For males, 96.8% identified as heterosexual, with 1.2% as bisexual, and 2.0% as gay (Walters et al., 2013).

The NISVS is expected to continue with the frequency to be determined based on funding. The data produced through the use of the NISVS will be used to inform policies and programs and establish priorities to combat this violence, and future data will be used to explore trends and track prevention effectiveness (Black et al., 2011; Breiding et al., 2014; Walters et al., 2013). The purposeful inclusion of sexual orientation identifying items also opened doors to improved research on IPV and the LGB population.

**Relationship Beliefs and Attitudes Questionnaire**

Cornelius et al. (2009) developed the RBA questionnaire. This instrument was a 24-item self-report measure originally developed to measure beliefs about relationship distress, divorce, and the costs and benefits of premarital counseling (Sullivan et al., 2004). Cornelius et al. (2009) adapted the original RBA to examine beliefs about dating
violence and specific programs created to prevent dating violence. The HBM was used as the foundation for the development, as participating in violence prevention programs is a health-related preventive behavior. The instrument assessed perceived susceptibility (3 items), perceived severity of dating violence including physical and verbal aggression (8 items), perceived barriers to participation (6 items), and perceived benefits (7 items). Besides analyzing these four HBM constructs, three additional items explored intention to participate in a dating violence prevention program.

Participants for this research were undergraduate college students at a large, public Midwestern University in the psychology program. Students were eligible to participate if they expressed being in a current or previous dating relationship. A low number of students expressed being in homosexual relationships; therefore, only heterosexual relationships were examined during final analysis. The sample was majority female (79%), non-Hispanic White (87%), and had a participant age average of 18.53 years (Cornelius et al., 2009). This study is discussed in more detail in the HBM section of Chapter 2.

**Instrument Development**

By modifying the NISVS IPV items and using the HBM items from the RBA instrument as a guide, the Perceptions of Intimate Partner Violence (PIPV) instrument was developed for the current study. This instrument explored the perceptions of Appalachian women toward various IPV-related behaviors. Common demographic questions were included such as: age; religious preference, employment status, and county of residence. Additional demographic items reflecting identified risk factors for
experiencing IPV such as household income, educational attainment, and place of residence (rural, suburban, urban) were explored.

The IPV items in the NISVS were originally phrased as incidence and prevalence questions. These were altered to reflect opinion rather than experience. For example, a physical aggression item in the NISVS instrument was phrased as, “How many of your romantic or sexual partners have ever slapped you?” The rephrased item read as, “how harmful is slapping an intimate partner?” The newly developed instrument examined each construct of the HBM with an emphasis on perceptions of severity along with items on IPV experience. Refer to Appendix B for pilot study documents and Appendix C for large-scale study documents.

**IRB Protocol**

Before conducting any research, an Institutional Review Board (IRB) application was submitted for a pilot study. The pilot study was approved at Level III due to the sensitive nature of the content discussed. A full board review commenced, resulting in assorted changes to the proposed research materializing. Permission was sought to alter the traditional consent process to allow for respondents to give verbal rather than written consent to participate in the study. After a few minor changes in content, the consent form was approved to serve as an informational document rather than a conventional consent form. Additionally, the IRB committee wanted to ensure all visitors to the data collection location had access to information on community IPV resources. Therefore, the IPV literature distribution method was altered. These changes are discussed in more detail below. Refer to Appendix C for the informational document.
Operationalizing Constructs

Operationalizing the HBM and IPV variables was accomplished through the use of multiple independent items per construct. These items were then combined during data analysis to create the six constructs of the HBM model and five types of IPV constructs. The five IPV constructs collectively represented the IPV variable as a whole (see Tables 4–6).

Table 4

Operationalizing of the Intimate Partner Violence Variable (Physical Violence & Sexual Violence Items)

<table>
<thead>
<tr>
<th>Items</th>
<th>Construct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slapping a romantic partner.</td>
<td>Physical Violence</td>
</tr>
<tr>
<td>Pushing or shoving a romantic partner.</td>
<td></td>
</tr>
<tr>
<td>Purposefully burning a romantic partner.</td>
<td></td>
</tr>
<tr>
<td>Purposefully trying to choke a romantic partner.</td>
<td></td>
</tr>
<tr>
<td>Throwing objects at a romantic partner to hurt him/her.</td>
<td></td>
</tr>
<tr>
<td>Purposefully hurting a romantic partner by pulling his/her hair</td>
<td></td>
</tr>
<tr>
<td>Kicking a romantic partner to hurt him/her.</td>
<td></td>
</tr>
<tr>
<td>Purposefully using a knife or gun on a romantic partner to hurt him/her.</td>
<td></td>
</tr>
<tr>
<td>Kissing in a sexual way when the kiss is not wanted.</td>
<td>Sexual Violence</td>
</tr>
<tr>
<td>Being forced to have anal sex when it is not wanted.</td>
<td></td>
</tr>
<tr>
<td>Being forced to have vaginal sex when it is not wanted.</td>
<td></td>
</tr>
<tr>
<td>Being forced to perform oral sex on a romantic partner.</td>
<td></td>
</tr>
<tr>
<td>Being forced to receive unwanted oral sex from a romantic partner.</td>
<td></td>
</tr>
<tr>
<td>Making untrue promises about the future to get a romantic partner to have sex.</td>
<td></td>
</tr>
<tr>
<td>Threatening to end a relationship to get a romantic partner to have sex.</td>
<td></td>
</tr>
<tr>
<td>Convincing a romantic partner to have sex by repeatedly asking for sex.</td>
<td></td>
</tr>
</tbody>
</table>

Note. The items presented in this table are revised, and will differ from the pilot study instrument.
Table 5

*Operationalizing of the Intimate Partner Violence Variable (Expressive Aggression, Coercive Control, & Stalking Items)*

<table>
<thead>
<tr>
<th>Items</th>
<th>Construct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calling a romantic partner a loser, failure, or not good enough.</td>
<td><em>Expressive Aggression</em></td>
</tr>
<tr>
<td>Calling a romantic partner names like ugly and/or fat.</td>
<td></td>
</tr>
<tr>
<td>Insulting or trying to humiliate a romantic partner in front of others.</td>
<td></td>
</tr>
<tr>
<td>Telling a romantic partner “no one else would want you.”</td>
<td></td>
</tr>
<tr>
<td>Calling a romantic partner names like stupid and/or crazy.</td>
<td></td>
</tr>
<tr>
<td>Acting very angry towards a romantic partner in a way that seems dangerous.</td>
<td></td>
</tr>
<tr>
<td>Making fun of a romantic partner in front of others.</td>
<td></td>
</tr>
<tr>
<td>Yelling at a romantic partner in a way that seems dangerous.</td>
<td></td>
</tr>
<tr>
<td>Preventing a romantic partner from seeing or talking to family or friends.</td>
<td><em>Coercive Control</em></td>
</tr>
<tr>
<td>Making decisions for a person such as what to eat, wear, or friends to have.</td>
<td></td>
</tr>
<tr>
<td>Making threats to physically harm a person other than the romantic partner.</td>
<td></td>
</tr>
<tr>
<td>Threatening to hurt someone you love.</td>
<td></td>
</tr>
<tr>
<td>Destroying something that was important to a romantic partner.</td>
<td></td>
</tr>
<tr>
<td>Controlling a romantic partner’s money.</td>
<td></td>
</tr>
<tr>
<td>Preventing a romantic partner from leaving the home.</td>
<td></td>
</tr>
<tr>
<td>Using a knife or gun to threaten a romantic partner.</td>
<td></td>
</tr>
<tr>
<td>Watching or following a romantic partner from a distance without their knowledge.</td>
<td><em>Stalking</em></td>
</tr>
<tr>
<td>Showing up in a place (home, workplace, school) when the visit is not wanted.</td>
<td></td>
</tr>
<tr>
<td>Leaving unwanted, romantic messages (including texts and voicemails).</td>
<td></td>
</tr>
<tr>
<td>Sending cards, gifts, or flowers when the romantic partner did not want them.</td>
<td></td>
</tr>
<tr>
<td>Spying on a romantic partner with a listening device, camera, or GPS.</td>
<td></td>
</tr>
<tr>
<td>Leaving strange or potentially threatening items for a romantic partner to find.</td>
<td></td>
</tr>
<tr>
<td>Making unwanted phone calls to a romantic partner (including hang-ups).</td>
<td></td>
</tr>
<tr>
<td>Sneaking into a romantic partner’s home/car to leave items/notes to scare them.</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* The items presented in this table are revised, and will differ from the pilot study instrument.
Table 6

Operationalizing of the Health Belief Model Constructs

<table>
<thead>
<tr>
<th>Items</th>
<th>Construct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic violence is a problem in my community.</td>
<td>Perceived Severity</td>
</tr>
<tr>
<td>Experiencing domestic violence would affect my personal health.</td>
<td></td>
</tr>
<tr>
<td>Experiencing domestic violence would affect my family.</td>
<td></td>
</tr>
<tr>
<td>Experiencing domestic violence would affect my social life.</td>
<td></td>
</tr>
<tr>
<td>A person’s health would not be affected by experiencing domestic violence.</td>
<td></td>
</tr>
<tr>
<td>I have a chance of experiencing domestic violence.</td>
<td>Perceived Susceptibility</td>
</tr>
<tr>
<td>It is fate that I will experience domestic violence.</td>
<td></td>
</tr>
<tr>
<td>There is no chance that I would be in an abusive relationship.</td>
<td></td>
</tr>
<tr>
<td>Learning about domestic violence can help prevent it.</td>
<td>Perceived Benefits</td>
</tr>
<tr>
<td>I can benefit from learning about domestic violence resources available to me.</td>
<td></td>
</tr>
<tr>
<td>Seeking help for domestic violence can improve quality of life for those involved.</td>
<td></td>
</tr>
<tr>
<td>There is no benefit to learning about domestic violence resources in my community.</td>
<td></td>
</tr>
<tr>
<td>I would rather not think about domestic violence.</td>
<td>Perceived Barriers</td>
</tr>
<tr>
<td>Consequences of domestic violence are expensive to treat.</td>
<td></td>
</tr>
<tr>
<td>I would be afraid to leave a relationship where domestic violence was taking place.</td>
<td></td>
</tr>
<tr>
<td>Addressing domestic violence issues is inexpensive.</td>
<td></td>
</tr>
<tr>
<td>Discussing domestic violence is embarrassing.</td>
<td></td>
</tr>
<tr>
<td>If I had experienced domestic violence, I would avoid talking about it because no one would believe me.</td>
<td></td>
</tr>
<tr>
<td>I can avoid experiencing domestic violence.</td>
<td>Perceived Self-Efficacy</td>
</tr>
<tr>
<td>It is not possible to avoid experiencing domestic violence.</td>
<td></td>
</tr>
<tr>
<td>If I were experiencing domestic violence, I am confident I could resolve the issue.</td>
<td></td>
</tr>
<tr>
<td>If I had experienced domestic violence, the following factors would encourage me to seek help.</td>
<td>Cues to Action</td>
</tr>
</tbody>
</table>

Note. The items presented in this table are revised, and will differ from the pilot study instrument items.
Pilot Study

A pilot study was an opportunity to test the instrument and protocol with a small group prior to large-scale implementation to identify deficiencies that were not apparent (Wiersma & Jurs, 2009). A pilot run of the developed instrument was conducted in Perry County, Ohio. This location was similar in geographic size and average income to the other Appalachian locations being researched in the larger study (ARC, 2014b; USCB, 2010). Additionally, Perry County was considered economically at-risk containing distressed areas (ARC, 2014a). While the counties being researched in the larger study ranged from distressed to transitional, each county contained distressed areas. Finally, Perry County bordered southern Muskingum County, a county being included in the larger study. Due to their proximity, and sharing of IPV resources, Perry County served as an ideal location for piloting this research.

Pilot Study Purpose

The pilot study was performed for five primary reasons. Teddlie and Tashakkori (2010) stated the pilot run is an effective method to improve confidence in instrument efficacy. Therefore, a psychometric analysis of the proposed PIPV instrument needed to be conducted to estimate reliability and content validity before being used in the larger study. Second, research has suggested (Kouame, 2010; Scott, 2014a, 2014b) that the reading level for research instruments should be at or below the eighth grade level. The pilot instrument tested beyond this level for Flesch-Kincaid Reading Level and had a decreased Flesch Reading Ease score. Therefore, it was necessary to gauge the usability of the instrument to ensure the layout was appropriate, wording of questions was clear,
and instructions were easy to understand and follow. To assure participant comfort, it was vital to examine these components of the instrument construction. Third, the procedural techniques and general logistics needed further development and refinement for the large-scale data collection. Fourth, this pilot study was a means to assess willingness to participate in this type of sensitive research. Existing literature notes a lack of participation because of fear of anonymity and distrust for health professionals (Behringer & Friedell, 2006; Coyne et al., 2006; Denham, 2003; Denham et al., 2004). Piloting this instrument provided a better understanding of what type of response might be received in the larger study. Lastly, the pilot study was a necessary way to garner support in other communities to allow this research to span a total of nine counties in Southeastern Ohio. IPV is a sensitive matter, which proved to be a hindrance when seeking facilities in which to collect data. When recruiting additional collection locations, it was beneficial to be able to inform participating counties the instrument was not only IRB approved, but also pilot tested with the population in a surrounding county.

**Pilot Study Data Collection**

A time was arranged to collect data at Perry County Health Department through collaboration with the county Health Commissioner and Health Department Director of Nursing. A volunteer assistant was trained to assist with data collection. This allowed for two individuals to be on site to address possible issues with reading and participant questions or concerns. Survey responses were collected through a paper-and-pencil instrument and an online survey. The data collection for the paper survey took place over
a three-day period with the research team gathering data from around 9am until 4pm each day.

To meet eligibility criteria to participate in the pilot run, respondents needed to be women, at least 18 years old, and live in Perry County. As individuals entered the health department, they signed in at the check-in window. The receptionist informed potentially eligible clients that there was a research study taking place, and it was their decision if they would like to participate or not participate. Individuals then came to a table set up in the back of the waiting room. They were given a brief explanation of the study, and a copy of the informational document, which included attached county resources for those experiencing IPV. They were then asked to read the form to determine if they would like to participate. If a client decided to take part in the study, she stated verbal consent, was given a clipboard containing the survey, a manila envelope, and a pen. When the survey was complete, the participant was instructed to place the instrument in the envelope, seal it, and return it to the data collection table. Participants were also offered an orange, banana, or apple to take with them as a thank you. There were 38 completed paper surveys collected over this three-day time frame.

The second way surveys were completed was through the use of an online survey run through Qualtrics. The online survey was mentioned to health department visitors as an option. The link was distributed upon request to individuals who were interested in participating, but did not want to take the survey at the health department at that time. The health commissioner also sent a blast email containing the survey link and IRB approved informational document to various other county agencies. This survey was
open for the remainder of the month, 12 days, resulting in an additional 10 respondents, for a total of 48 participants for the Perry County pilot study.

**Pilot Study Data Analysis**

After being keyed, the paper surveys were entered into an Excel file. The data from the paper and online surveys were then combined for analysis through the use of SPSS version 21. Once the data were combined, the set was cleaned. Respondents who indicated they lived outside of Perry County, were not at least 18 years old, or who did not provide necessary demographic information were excluded from analysis. This resulted in 43 useable surveys. Frequencies were run to acquire an enhanced understanding of participant demographics. Demographics were examined for variance as the proposed research question was to explore age, religion, educational attainment, and household income as variables. There was only enough variance in the age demographic, which was explored in detail. To do this, age groups were created: group one (age 18–29, 13 participants); group two (age 30–39, 7 participants); group three (40–59, 15 participants); and group four (60 and up, 8 participants).

The community perspective on whether or not IPV was an issue in the county (pilot instrument, Q1, Appendix B) was examined on its own through the use of measures of central tendency. The mean was 3.10 on a scale of 4. This revealed that participants agreed IPV was an issue in Perry County. Individual construct questions were combined to create the perceived benefits (4 questions), perceived barriers (7 questions), perceived susceptibility (3 questions), perceived severity (5 questions), and self-efficacy (2 questions) variables. All five reverse-worded questions (pilot instrument, Q 9, Q12, Q14,
Q16, & Q 20, Appendix B) were recoded to allow for analysis. Scores of 4 became 1. Scores of 3 became 2. Scores of 2 became 3. Scores of 1 became 4.

A main focus of this study was on perception of severity of different types of violence which included: sexual; physical; stalking behaviors; expressive aggression; and coercive control. Each type of violence was represented by a collection of items. These items were combined to create the individual violence type variables as follows: sexual aggression (7 items); stalking behaviors (4 items); expressive aggression (4 items); coercive control (8 items); and physical aggression (6 items). Expressive aggression and coercive control items were combined to create the psychological aggression variable to compare against the psychological aggression experience item. The newly created types of violence variables (physical, sexual, psychological aggression, & stalking behaviors) were combined to create the total IPV severity variable. Refer to Tables 4 and 5 for clarification on operationalizing the IPV variables.

Levene’s test of homogeneity of variance (Wiersma & Jurs, 2009) was calculated to test the null hypothesis that the error variance of the dependent variable was equal across age groups. The assumption of homogeneity of variance was met. The age group independent variable was then run against the total IPV severity variable through the use of ANOVA. There was no significant difference between age groups on total IPV severity with an F-value of .682 (df: 3, 39).

Participants were asked if they felt they had experienced sexual or physical aggression, psychological aggression, or stalking behaviors. Respondents who identified as experiencing the specific type of violence were analyzed against women who stated
they had not experienced the specific type of violence. These two groups were compared
with their perception of severity of the behaviors that comprised that particular type of
violence. The independent variable was also compared to the total IPV severity variable
through the use of t-tests to compare the means. For clarification, physical violence
experience (had experienced versus vs. had not experienced) was tested against the
physical violence construct. Physical violence experience was then tested against the
total IPV severity score.

Descriptive statistics were run to examine five of the six constructs of the HBM
including: perceptions of severity, perception of susceptibility, perception of benefits,
perception of barriers, and self-efficacy. The sixth construct, cues to action, was
analyzed in a different manner because it was designed as a rank order item, and not
Likert scale item. In order to run the cues to action ranking item, responses that did not
contain a ranking of 1, 2, 3 needed to be removed. This resulted in 34/43 participants
being used for this analysis. The number of times each item appeared as 1, 2, or 3 was
then calculated.

Cronbach’s alpha coefficient was used to assess items 1–21 for internal
consistency within each domain of the HBM, and for the theory as a whole. Santos
(1999) explained that Cronbach’s alpha coefficient has been used in research to
determine reliability (internal consistency) of items that have multiple possible answers,
or that used a Likert scale format (Likert, 1932). Individual items could be tested, as
could variables constructed from combining several items. Alpha scores range from 0 to
1, with higher scores signifying better internal consistency (Cronbach, 1951). Research
conducted by Nunnaly (1978) set the gold standard for internal consistency at an alpha of .7. However, lower alpha thresholds are also acceptable (Santos, 1999) dependent upon instrument construction. The overall alpha score for the pilot instrument was .603, indicating internal consistency slightly below the desired score. However, since there were multiple subscales that measured different constructs of the HBM theory, examining the HBM scale as a whole rather than as individual subscales resulted in lower internal consistency of the instrument as a whole. When alpha was run to determine if deleting lower scoring items increased reliability, results revealed that expunging any of the items reduced overall internal consistency. When individual subscales were tested independently using Cronbach’s alpha coefficient, higher reliability scores were reported for subscales. More items per subscale increased internal consistency. However, perceived barriers alpha score remained low at .487 regardless of being represented by 7 items. Overall, results revealed the instrument is stronger based on individual Cronbach’s alpha coefficient scores compared to a collective alpha score.

Response bias is a common limitation in survey research in the literature. Sonderen, Sanderman, and Coyne (2013) explained this phenomenon as “discrepancies arising between the opinion the researcher wants to elicit and the answer given by the respondent” (p. 1). One common technique employed to address this issue is reverse-wording items to determine if the respondent was granting attention to the meaning of individual items, and the individual items were comprehensible to respondents. Reverse-worded items were included in the perceived severity, perceived
susceptibility, perceived benefits, perceived barriers, and self-efficacy components of the instrument. Refer to Table 7 for specific reversed items.

Table 7

Pilot Instrument Reverse-Worded Items

<table>
<thead>
<tr>
<th>Construct</th>
<th>Original Item</th>
<th>Reverse-Worded Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Severity</td>
<td>Experiencing domestic violence would affect my personal health.</td>
<td>A person’s health would not be affected by experiencing domestic violence.</td>
</tr>
<tr>
<td>Perceived Benefits</td>
<td>I can benefit from learning about domestic violence resources available to me.</td>
<td>There is no benefit to learning about domestic violence resources in my community.</td>
</tr>
<tr>
<td>Perceived Susceptibility</td>
<td>I have no chance of experiencing domestic violence.</td>
<td>There is no chance that I would be in an abusive relationship.</td>
</tr>
<tr>
<td>Perceived Barriers</td>
<td>Consequences of domestic violence are expensive to treat.</td>
<td>Addressing domestic violence issues is inexpensive.</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>I can avoid experiencing domestic violence.</td>
<td>It is not possible to avoid experiencing domestic violence.</td>
</tr>
</tbody>
</table>

*Note.* Refer to complete pilot study instrument and pilot study instrument key in Appendix B.

The reliability of the severity of behaviors component of the instrument was also tested using Cronbach’s alpha coefficient. This portion of the instrument (pilot instrument, Q27-55) revealed an alpha of .965. Although this score shows high internal consistency, it is unusually high. The alpha score was the result of low variance in responses to the severity items. A four-point Likert scale was used for item options which included: “not at all harmful,” slightly harmful,” “moderately harmful,” and “very harmful.” The majority of responses to the various violent behavior examples were
recorded as “moderately harmful” and “very harmful.” There was no reason to look at alpha levels for individual severity components because too little variance existed in respondents’ answers.

**Pilot Study Results**

**Survey design.** Through the pilot study process, it was identified that multiple terms assumed of as common knowledge were not shared vernacular of participants. Terms such as “urban,” “rural,” “suburban,” and “heterosexual” needed to be explained to several participants. When asked, “what is your sexual orientation?” numerous respondents selected the “other” option and wrote in “straight” as their identified sexual orientation. Because of these findings, the large-scale survey was adjusted to incorporate terms more familiar, such as “city,” “country/farm,” “neighborhood,” and “straight.” Additionally, the length of the instrument was perceived as daunting. A number of respondents expressed difficulty with completing the instrument in a timely manner. The pilot instrument required between 10 and 20 minutes to complete at a length of six full pages. The layout of the severity of behaviors section (Q27-55) was also intimidating. Various participants stated confusion with the instructions for this section. These items were adapted to a new form, eliminating this issue, and contributed to reducing the overall length of the large-scale instrument. Refer to Appendix C to view the revised, large-scale instrument.

**Participant demographics.** Only three women who were eligible to complete this survey who visited the health department during the data collection dates declined to complete the survey. The remaining women who were eligible agreed to participate.
This was a 91.8% participation rate, and demonstrated a community willingness to take part in anonymous research. This finding was used to entice other counties to take part in the large-scale study.

When creating the final version of the pilot instrument, the “bisexual” option in the sexual orientation (D10) item was inadvertently omitted. However, 100% of women participating identified as heterosexual (43/43), so this error did not appear to have altered the findings. Bisexuality was included in the large-scale instrument to more thoroughly represent the sexual orientation demographic. Since only women were eligible to complete the survey, the “gay” option was combined with the “lesbian” option to save physical space and reduce superfluous options.

Frequencies revealed the most variance in the age demographic. Although there was not enough variance in 3 out of 4 demographic subsets in the pilot study to allow for them to serve as independent variables, the participant demographics were similar to statistics presented by the ARC (2014b). For example, there was a larger proportion of individuals with high school diplomas or less than individuals with college degrees and beyond. Additionally, the majority of respondents identified as being of Christian faith. These were frequent findings in the Appalachian region, thus making this group a good representation of this locale.

**Community perspective.** Participants were asked to respond to the following statement, “domestic violence is a problem in my community” (pilot instrument, Q1, Appendix B). The perspective on the issue of IPV in the community was scored based
on offered Likert scale options: *Strongly disagree* (1 point), *disagree* (2 points), *agree* (3 points), and *strongly agree* (4 points).

**Health Belief Model constructs.** Perceptions of severity had scores ranging from 5–20, with the mean being 17.44. Perception of susceptibility scores ranged from 3–12, with the mean being 5.69. Perception of benefits scores ranged from 4–16, with the mean being 12.88. Perception of barriers scores ranged from 7–28, with a mean score of 17.51. Self-efficacy scores ranged from 2–8, with a mean of 5.39.

The cues to action construct was designed as a rank order item. Participants had to designate their top three influences to persuade them to seek help if they were to experience IPV. Through running frequencies, the top three selections were “a child in the home” (26/34), “family urging them to seek help” (20/34), and “friends urging them to seek help” (18/34).

**Experience of IPV and perspective.** When women who had experienced a specific type of violence were compared to women who had not experienced that same type of violence, there was no difference in perspectives except in the case of sexual abuse. When the total IPV severity variable was used against experience for each specific type of violence, no differences existed between experience of and no experience of that type of violence for any of the four types explored with the exception of sexual abuse. These scores were significant.

**Pilot Study Discussion**

Each HBM score revealed something pertinent to this research. Perception of severity scores demonstrated that there was a recognition that IPV could be damaging to
a person’s overall health and wellbeing. The perception of susceptibility score revealed two possible options: women were in denial of the potential for them to be in a relationship where IPV took place, or they were in healthy relationships. This was a moderately high score; however, the majority of Perry County women surveyed felt somewhat susceptible to IPV. Perception of benefits revealed that there was a general consensus that addressing the issue of IPV could be beneficial for an individual. However, the perception that barriers to addressing the issue of IPV remain high was a concern for women to actually seek help. Interestingly, even though the barriers score was moderately high, the self-efficacy score was also moderately high. Participants felt there were numerous barriers when experiencing IPV, yet they were confident with their ability to address the issue. This was both a contradiction and strength worth further exploration.

The perception of severity of IPV behaviors component of the instrument had a lack of variance in responses resulting in no difference across age groups, and no significance based on experience of IPV (with the exception of sexual aggression). It was hypothesized that women who had experienced IPV would rate IPV as more severe than those participants who had no experience with IPV. It was hypothesized that sexual aggression and physical aggression behaviors would be perceived as more harmful than psychological aggression or stalking behaviors. However, this assumption did not come to fruition. For example, receiving unwanted cards and flowers (stalking behaviors) was rated nearly as harmful as being called stupid (psychological aggression), being slapped (physical aggression) or being forced to have unwanted sexual interactions (sexual
aggression). A possible explanation for no significant differences in types of violence could lie in the design of the instrument. Participants were asked if various behaviors were not at all harmful, somewhat harmful, moderately harmful, or very harmful. The majority of individuals picked moderately harmful or very harmful for nearly every type of violence and every item. Participants were not required to distinguish between the different behaviors, simply their perception of severity. This design made it simple for respondents to not read items, but simply circle responses. This lack of variance in answers provided justification for exploring a fundamental change to this section of the instrument for the large study.

**Changes for Large-Scale Study**

*Healthy People 2020* (USDHHS, 2010) objective LGBT -1.1 is to “increase the number of population-based data systems used to monitor *Healthy People 2020* objectives that include in their core a standardized set of questions that identify lesbian, gay, and bisexual populations” (para. 2). Although the current research was not population-based or focused on LGBT individuals, it functioned as an opportunity to strive toward inclusion of the sexual orientation demographic item and basis to potentially enhance the knowledge on IPV with this population in this locale. All of the women in the pilot study did identify as heterosexual. This could be because of the stigma attached to identifying as a sexual orientation other than heterosexual, especially while simultaneously being a member of an Appalachian community (Lee, Goldstein, Ranney, Crist, & McCullough, 2011; B. E. Smith et al., 2010; White, 2014), or this particular group of women simply identified as heterosexual. Researchers determined
IPV is a public health concern that could affect anyone, but specific populations, like Appalachian women and the LGB population, could experience IPV differently. While the current study was not exploring same-sex relationship violence, the PIPV instrument was neutrally designed so women could respond to all survey items regardless of their relationship status or sexual orientation identification. The sexual orientation demographic items inclusion was continued in the large-scale study, as it could serve useful for prospective research, or for future instrument development on this topic.

The cues to action question (pilot instrument, Q27, Appendix B) was answered incorrectly by 10 participants. The revised, large-scale study instrument included clearer instructions to limit the number of responses that needed to be excluded because of rank order complications. It also required participants to rank all choices from 1–8 rather than simply picking their top three influences.

The severity of behaviors questions (pilot instrument, Q27-55, Appendix B) were reworked to be a rank order procedure instead of Likert items. Instead of allowing the option to determine severity of behaviors as a whole, individuals had to rank the perceived severity of each type of violence. This ensured there would be more variance in responses. For example, one statement each representing physical aggression, sexual aggression, stalking behaviors, coercive control, and expressive aggression behaviors were grouped. Participants then determined which behavior was perceived to be severe to least severe by ordering the behaviors from 5 to 1. A rating of one represented the behavior perceived to be the most severe to five being the least severe behavior. Refer to
Appendix C for the revised instrument or Tables 4 and 5 for the IPV behavior severity items.

With the modification of the severity of behaviors items, the paper-and-pencil instrument had improved readability to enhance comfort for individuals who had lower literacy skills. The large-scale instrument was tested for readability following revisions. The Flesch Reading Ease score was 60.9 with the Flesch-Kincaid Grade Level score standing at 6.2. Reading ease was measured on a scale of 0 to 100. The higher the rating, the more easily the document could be read. An acceptable instrument had a standard reading ease score between 60 and 70 (Scott, 2014a). The reading grade level should be between 7.0 and 8.0, or lower (Scott, 2014b). These scores demonstrated that the survey adjustments positively affected the readability of the instrument. This should also reduce the amount of time needed to complete the survey, which would potentially result in increased participation in the large-scale study.

The psychological aggression experience item was transformed into two separate items. One item represented coercive control experience, and one item represented expressive aggression experience. In the pilot instrument psychological aggression was the form of violence respondents identified as experiencing more often than sexual aggression, stalking behaviors, or physical aggression. Because of the nature of the item, it was not possible to dis-aggregate the data to get a more comprehensive understanding of this perceived experience. By revising the psychological aggression experience item there was a possibility of obtaining more specific and beneficial findings, which could be explored through more astute disquisition.
Large Scale Study Data Collection Plan

Instrument Expert Panel Review

The pilot instrument was subjected to a face validity inspection by being audited for content and comprehension by two agency representatives where data was being collected. No concerns or necessary changes were noted, and approval was given to initiate the pilot test using the existing instrument. The instrument was also examined by multiple community members for syntax and ease of use prior to being tested, and during pilot testing. These conclusions are discussed in detail in the findings section below.

McKenzie, Wood, Kotecki, Clark, and Brey (1999) explained that collaboration through use of an expert panel of reviewers is a critical step toward improving content validity. An expert panel review preceding the commencement of the large-scale study transpired to gauge face validity and content validity. The responsibilities of the expert reviewers was to qualitatively determine if the instrument measured what it was intended to measure and ensured the instrument was appropriate for the population of interest. Specifically, experts were instructed to appraise overall presentation (grammar, spelling, syntax, flow, cultural relevance, ease of use, content), and if the HBM and IPV constructs were methodically and accurately represented by the items presented in the revised \textit{PIPV} instrument.

Face validity was scrutinized from three different perspectives: cultural appropriateness, HBM interpretation, and IPV representation. Experts from each category received a basic evaluation rubric with specific items to direct their attention and help guide the review process. Three professionals working directly with individuals
living in the communities being researched, and employed at the future data collection facilities, were invited to evaluate the instrument’s cultural appropriateness for the Appalachian population. These experts were instructed to focus on overall presentation, content, readability, ease of use, items on personal IPV experience, demographic items and the options offered for those items.

Following the pilot test revisions and before the large-scale study began, three scholars who had health theory knowledge were invited to evaluate the HBM construct subscales. These experts were asked to consider the overall presentation of the instrument. The main task was to spotlight the items that comprised each HBM subscale, specifically considering the syntax of these items, number of items offered per construct, and the subscales’ strength in representing individual constructs.

Lastly, one expert critiqued the representation of the five violent behaviors that encompassed IPV. This expert had a background in Women’s Studies. The expert was also charged with considering the overall instrument presentation, but investigated the items that represented each type of violence to determine if they were appropriate indicators of each individual IPV construct. Refer to Table 8 for expert panel review comments.

Content validity was not evaluated prior to pilot testing, as it was assumed ample content validity existed because of the use of the previously tested and validated surveys. Reliability was measured in the psychometric analysis by calculating the Cronbach’s alpha coefficient (discussed above).
# Table 8

**Expert Panel Review Results**

<table>
<thead>
<tr>
<th>Expert</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health Belief Subscales Experts</strong></td>
<td></td>
</tr>
</tbody>
</table>
| Expert #1             | Q14 is not reverse-worded for Q10.  
Will respondents know what address means? This sounds like an awareness question to me. Are there benefits to knowing about resources?  
Will respondents know what quality of life means? Re-word without using the phrase quality of life… "fewer problems in life" or "more enjoyable life."  
Will respondents know what an abusive relationship is? Why use abusive relationship and domestic violence in other places?  
Is fate the best word?  
Treat seems to be related to health, but there are many more consequences (Q15).  
Physically painful? Mentally painful? Others? (Q18)  
What do you mean by inconvenience? Take time? Go to hospital? Go to court? Go to jail? My life or me? (Q20).  
How about "I can avoid" vs. "I can prevent myself"  
Include 'online' in cues to action choice #1  
Are the words public health important? Could it be at church? In a school? |
| Expert #2             | Consider adding an item to “Perceived Barriers” subscale that asks if a woman would avoid reporting or discussing IPV because she perceived no one would believe her. |
| **Appalachia Experts** |
| Expert #3             | No concerns with design, content, or readability. |
| Expert #4             | Content meshes perfectly with our agency philosophy and mission. |

*(table continues)*
Table 8 (continued)

*Expert Panel Review Results*

<table>
<thead>
<tr>
<th>Expert #5</th>
<th>No concerns with design, content, or readability.</th>
</tr>
</thead>
</table>

*Intimate Partner Violence Subscales Expert*

<table>
<thead>
<tr>
<th>Expert #6</th>
<th>A good variety of physical violence is represented</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>While the questions cover a wide range of sexual violence, the way that the questions are asked seems too impersonal. A woman does not simply “receive” vaginal or anal sex when it is not wanted. That being said, I recognize the attempt to be neutral. “Being forced to have vaginal sex when it is not wanted” may be better. It may also remove the difference in a woman’s mind from “I simply wasn’t in the mood” to “I did not want to do this” or give consent.</td>
</tr>
<tr>
<td></td>
<td>Very understandable questions around stalking.</td>
</tr>
<tr>
<td></td>
<td>I would recommend including curse words in Group 2: EQ39</td>
</tr>
<tr>
<td></td>
<td>I like the phrase “felt dangerous” in Q25. Nice way to differentiate between yelling in a fight and when the action has taken a step closer to IPV.</td>
</tr>
</tbody>
</table>

*Instrument Design Considerations*

<table>
<thead>
<tr>
<th>Expert #4</th>
<th>Readability seemed relevant to our population. Questions were clear, concise, and appropriate.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Overall presentation is excellent.</td>
</tr>
<tr>
<td></td>
<td>The respectfulness of the “prefer not to answer” option [demographic items] is appropriate.</td>
</tr>
<tr>
<td></td>
<td>Consider using 1 to 5 as the rank order for most severe to least severe instead of 5 to 1.</td>
</tr>
</tbody>
</table>

*(table continues)*
Table 8 (continued)

*Expert Panel Review Results*

<table>
<thead>
<tr>
<th>Expert</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expert # 5</td>
<td>Keep in mind that Groups 1–8 are valuable, but also time consuming. Item answers are frequently in all caps, making it uncomfortable to read.</td>
</tr>
<tr>
<td></td>
<td>Consider changing “what is your present age in years?” to “How old are you?”</td>
</tr>
<tr>
<td>Expert #6</td>
<td>The order of the questions is great as well as the change in how the respondent answers. It helps to stop the monotony of circling.</td>
</tr>
<tr>
<td></td>
<td>I would consider adjusting D6. It may be important if a woman is not married but living with a romantic partner, but they may not consider it a “domestic partnership.”</td>
</tr>
</tbody>
</table>

*Note.* This feedback was on the pilot instrument in Appendix B. Changes were made to the large scale study instrument (Appendix C) based on the expert panel review.

**Data Collection Locations**

Eight counties were examined for this portion of the research that included: Coshocton, Guernsey, Harrison, Monroe, Morgan, Muskingum, Belmont, and Noble. These counties were selected because minimal published data existed on the topic of IPV perceptions in this area, they are geographically connected, and they are clustered by the ARC (2008) as being in the East Central Appalachian region. County health departments were initially identified as suitable data collection locations because of the wide variety of services provided, which would potentially offer a more diverse participant sample. Additionally, it was intended that this research would be able to serve some usefulness to the communities in which it was conducted. Health departments play a primary role in
addressing public health issues (Shattuck, 2002). Therefore, these agencies would be able to most directly benefit from the data. The locations that were ultimately secured were agencies that were comfortable allowing data to be collected in their various facilities. The sensitive nature of the research was indeed a barrier to getting permission from the desired agencies in each county of interest. However, the inclusion of the library system and Job and Family Services locations will potentially aid in diversifying respondents to allow for an improved analysis compared with the pilot run.

In Guernsey County, four physical data collection locations included the Department of Job and Family Services (main office) and three Guernsey County Library locations (main branch, Byesville branch, and Crossroads branch). In Muskingum County, two locations included: Muskingum County Children with Mental Handicaps, Help Me Grow & Women, Infants, and Children office (operated through the Muskingum County Health Department); and the Muskingum Valley Health Center (a federally qualified health center). In Belmont County, the Tri-County Help Center was the single data collection location.

**Procedure**

The survey was available online through the use of Qualtrics, and paper-and-pencil surveys were collected at the specified locations throughout each county discussed in the previous section. Each physical location followed the same collection protocol with slight differences for the Guernsey County Library system locations and Guernsey County Job and Family Services. A two member research team set up a table in the waiting room area of each location. After clientele checked in, the receptionist informed
female clients a research study on IPV was taking place, letting them know they may complete the survey if they desired. If a client decided to learn more about the research, she was given the informational document. Also included with the informational document was literature on resources available in the county should a person need assistance with IPV matters. After reading about the purpose, risks, and benefits, clients were asked if they would like to proceed. If a client did not want to proceed, she was thanked for her time and offered a snack. If a client decided to proceed, she was given a clipboard containing the survey, a pen, and a manila envelope. Participants were then instructed to not put their name on the survey, complete the survey, seal the survey in the envelope given when they have completed it, and return the sealed envelope to the collection table. The research team quickly debriefed the participants by asking if they had any questions or concerns.

The Guernsey County Library locations had an adapted collection process because patrons did not have to check in when entering the library. Instead, a table was set up in the foyer of Crossroads, and a table next to the circulation desk at the Byesville and Main branch locations. As patrons entered or exited the library, they were asked if they would like to complete the survey. Librarians also informed patrons as they checked out that the research was taking place.

Recruiting Participants

There were multiple ways participants were recruited for this project. First, an advertisement containing a link to the online survey was placed in three newspapers reaching each county being investigated. There was concern that potential respondents
would not have access to computers or Internet. However, each county had unique locations offering free computer and Internet access such as libraries and job centers.

Second, Facebook was used in order to distribute the link as thoroughly as possible. The research team established a Facebook page specifically to contain the online survey link, have information on IPV resources available in each county being researched (including the pilot county), and to post the study eligibility and consent information. This link was also distributed through the PI’s personal account. Agencies that had Facebook pages also posted the online survey link on their accounts. Agencies that had webpages (Guernsey County Job & Family Services and Muskingum County Health Department) posted the link on their agency websites.

Each participating agency, excluding the Guernsey County Library System, distributed the online survey link to their community contacts through electronic mail. These contacts could then take the survey themselves (if eligible), or further distribute the link to clientele, or their contacts, if they wished. Lastly, designated data collection days were established to gain more participation. Women who visited the participating agencies on the select days were asked to complete the paper-and-pencil survey.

**Protecting Participant Anonymity**

As discussed in Chapters 1 and 2, anonymity can be a barrier to help seeking and gathering research. IPV is a very sensitive subject; therefore, protecting the anonymity, safety, and comfort of participants was paramount for this research. Multiple attempts were made to show consideration for participants’ privacy and comfort. Traditionally, the consent process involves presenting a form with information on the purpose of the
study, risks, benefits, and so forth with a signature required to acknowledge participant understanding of this information. However, a signature directly links a person to participation and reduces the anonymity aspect of the research. Therefore, the traditional consent form was presented with the IRB required information, but participants verbally consented to participation prior to being given the instrument. The consent form now served as an informational document. This same process was applied in the pilot study in Perry County and discussed previously.

Additionally, data collection took place in agency waiting rooms. This ensured the research team did not learn client’s personal health information. Conversely, agency staff did not administer the survey. This ensured participants’ survey responses were not learned by staff, further protecting anonymity. While having the research team administer the survey and set up in the waiting area was a protective measure, it did minimally reduce participant privacy when completing the instrument. To counteract this, a manila envelope was provided for participants to shield their answers. This envelope also served as a way to seal participant responses. Other participants, staff, and the research team were not able to link a participant with the completed survey because they were sealed prior to being turned in. If the manila envelope seemed like not enough protection for participants, or if clients needed assistance with reading the survey, each location offered a private room where the participant and one member of the research team could dialog.
Access to IPV Resources

Having access to and knowledge of community resources that can assist with IPV was an important component of this research. To ensure all participants knew where the resources were located in their county, a sheet was attached to the informational document. Since participants could take the informational document with them, they also had the opportunity to take the resource material. There were also additional informational documents produced by the Ohio Domestic Violence Hotline that were placed on the collection table for anyone to take. Since each county varies by the type and number of IPV resources offered, the specific information presented by county varied.

Incentives

Each woman who participated in the study was offered their choice of a snack, which included fresh fruit, nutrition bars, or a small package of chocolate. This was not an incentive, but a thank you for participation. A financial incentive would have increased participation, but it would have also conflicted with the Job and Family Services mission statement. Also, the library system would have considered the research soliciting. Therefore, financial incentives were not offered for this research project.

Large Scale Study Data Analysis Plan

After being keyed, the paper surveys were entered into an Excel file and then combined with the online survey for data analysis through the use of SPSS version 21. Once the data were combined, the set was cleaned to eliminate participants that did not meet the inclusion criteria, or surveys that produced incomplete data. Frequencies were
run to determine how many respondents resided in each county being investigated. Frequencies were also run to acquire an enhanced understanding of the diversity within participant demographics including identification of age, household income, educational attainment, type of environment, IPV experience, and Appalachian self-identity. This was necessary to determine if these identifiers could serve as independent variables. Each demographic was suitable to serve as independent variables. Evenly distributed groups were then created for each independent variable.

To answer research question #1 the community perspective on whether or not IPV was an issue in the county (Q1) was examined through the use of measures of central tendency. Chi square tests were run to explore the possible relationship between Appalachian self-identity, type of environment, and help-seeking behavior.

Multiple analyses took place to answer research question #2. Individual construct questions were combined to create the perceived benefits, perceived barriers, perceived susceptibility, perceived severity, and self-efficacy variables. The HBM reverse-worded items were recoded. Scores of 4 became 1. Scores of 3 became 2. Scores of 2 became 3. Scores of 1 became 4. Perceived benefits, barriers, susceptibility, severity, and self-efficacy subscales were then analyzed against each independent variable of interest. T-tests were used to explore HBM and IPV experience, whereas one-way ANOVA was used to examine the remaining variables. Where significant differences existed, a post hoc comparison using the Tukey HSD test was performed. Additionally, a logistic regression was performed to ascertain the efficacy of the HBM constructs in predicting IPV experience and likelihood of seeking help if IPV were experienced.
For research question #3, a descriptive analysis was run to evaluate the mean and standard deviation of each statement in each group based. From these measures of central tendency, the rank order of each type of violence was determined. The mean scores for each type of violence were then calculated to determine which type of violence was rated most harmful overall. Because the behavior ranking items (groups 1–8) were nonparametric, the Mann-Whitney U Test was used to analyze if there was a significant difference in perception of severity within the ranking based on a woman’s experience with IPV.

Finally, to answer research question #4, what cues to action would encourage a woman to seek help if she experienced IPV, a descriptive analysis was used to determine which cues were rated as most influential to help-seeking. Each cue statement was ultimately ranked based on the total number of times it was listed as 1 out of 9 by each of the participants. The following chapter presents the large-scale study results.
CHAPTER IV
RESULTS

The purpose of this study was to investigate IPV in nine Appalachian Ohio counties by applying the constructs of the Health Belief Model. A multi-scale instrument was developed to explore participant perception of IPV as a public health and personal concern. Participant rankings of physical aggression, sexual aggression, expressive aggression, coercive control, and stalking behaviors, based on perceived severity, were analyzed. The instrument also contained items to assess cues to action (triggers that would encourage a woman to address IPV if it were occurring). Demographics identified through the literature review to be relevant to shaping IPV attitudes, behaviors, and considered as risk factors for experiencing IPV including: age, household income, educational attainment, environment (rural, suburban, urban), and lifetime IPV experience were examined. Appalachian self-identity was also pinpointed as an essential demographic item to consider.

SPSS version 21 was employed to analyze the data. Frequencies, measures of central tendency, t-tests, one-way ANOVA, Chi square, logistic regression, and the Mann-Whitney U Test were used for statistical analyses. The findings were interpreted to answer the following research questions and hypotheses:

Research Question #1: Are there significant differences in attitudes toward IPV between women living in 9 counties in Appalachian Ohio?

Hypothesis #1: IPV in Appalachia will be seen as an issue of concern by the women participating across the counties being investigated.
Hypothesis #2: There will be no significant differences in regards to help-seeking behavior between women who self-identify as Appalachian compared to women who do not.

Research Question #2: How do women living in 9 Appalachian Ohio counties score on perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and self-efficacy HBM subscales for the following independent variables: (a) age, (b) household income, (c) educational attainment, (d) rural, suburban, or urban environment, (e) Appalachian self-identity, and (f) lifetime IPV experience?

Hypothesis #3: There will be no significant differences in perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and self-efficacy HBM subscales.

Research Question #3: How are physical aggression, sexual aggression, expressive aggression, coercive control, and stalking IPV behaviors rated in terms of perceived severity by women living in 9 Appalachian Ohio counties?

Hypothesis #4: There will be no significant differences in perceived severity for physical, sexual, and expressive aggression, coercive control or stalking behavior subscales.

Research Question #4: What cues to action would influence women living in 9 Appalachian Ohio counties to seek help if they had experienced IPV?

Hypothesis #5: Children being in the home and family urging will be the top rated cues to action.
Descriptive Analysis

Participating Counties, Appalachian Self-Identity, and Type of Environment

A total of 542 surveys were initiated either at one of the eight physical data collection locations or online. Of those, 122 were completed online and 420 were completed through the paper-and-pencil version at physical data collection locations. Twenty online surveys and seven paper-and-pencil surveys were excluded from the analysis because of missing data \((n = 10)\), being completed by males \((n = 3)\), or because the participant did not reside in an Appalachian county \((n = 14)\). This resulted in a total of 515 surveys appropriate for analysis.

Representation of each of the nine counties being researched was as follows: Belmont \((n = 30, 5.8\%)\); Coshocton \((n = 43, 8.4\%)\); Guernsey \((n = 132, 25.6\%)\); Harrison \((n = 8, 1.6\%)\); Monroe \((n = 30, 5.8\%)\); Morgan \((n = 46, 8.9\%)\); Muskingum \((n = 182, 35.3\%)\); Noble \((n = 27, 5.2\%)\); and Perry \((n = 7, 1.4\%)\). Ten respondents hailed from other Appalachian counties including Athens \((n = 2, 0.39\%)\), Jefferson \((n = 5, 0.97\%)\), and Washington \((n = 3, 0.58\%)\). These participants were included in the analysis, as they were within the region being researched.

Of this sample, 37.4\% \((n = 192)\) lived in a rural environment, 37.52\% \((n = 191)\) lived in a suburban environment, and 25.5\% \((n = 131)\) lived in an urban environment. As for Appalachian self-identity, 36.7\% \((n = 189)\) of respondents identified as Appalachian, with 42.2\% \((n = 216)\) rejecting the label, and 21.2\% \((n = 109)\) reporting not knowing if they considered themselves to be Appalachian or not. Table 9 outlines the county breakdown, type of environment, and Appalachian self-identity of participants.
Table 9  
*Counties, Appalachian Self-Identity, and Type of Environment*

<table>
<thead>
<tr>
<th>County</th>
<th>n (%)</th>
<th>Environment</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perry</td>
<td>7 (1.4)</td>
<td>Rural</td>
<td>192 (37.4)</td>
</tr>
<tr>
<td>Muskingum</td>
<td>182 (35.3)</td>
<td>Suburban</td>
<td>191 (37.2)</td>
</tr>
<tr>
<td>Guernsey</td>
<td>132 (25.6)</td>
<td>Urban</td>
<td>131 (25.5)</td>
</tr>
<tr>
<td>Noble</td>
<td>27 (5.2)</td>
<td>TOTAL</td>
<td>514 (100)</td>
</tr>
<tr>
<td>Belmont</td>
<td>30 (5.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morgan</td>
<td>46 (8.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monroe</td>
<td>30 (5.8)</td>
<td>Appalachian Self-Identity</td>
<td>n (%)</td>
</tr>
<tr>
<td>Coshocton</td>
<td>43 (8.4)</td>
<td>Yes</td>
<td>189 (36.7)</td>
</tr>
<tr>
<td>Harrison</td>
<td>8 (1.6)</td>
<td>No</td>
<td>216 (42.2)</td>
</tr>
<tr>
<td>Other Appalachian</td>
<td>10 (1.9)</td>
<td>Do Not Know</td>
<td>109 (21.2)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>515 (100)</td>
<td>TOTAL</td>
<td>514 (100)</td>
</tr>
</tbody>
</table>

*Note.* Paper and pencil surveys that were not appropriate for analysis (*n* = 8) were not included in this chart, as they were excluded prior to data analysis. Also excluded were respondents from counties outside of Appalachia (*n* = 10), and those missing data (*n* = 9).

**Age, Household Income, and Educational Attainment**

Ages ranged from 18 to 89. The average age of participants was 43.87 with a standard deviation of ±14.7. A total of 217 participants (42.2%) stated an annual household income of $19,999 or less, with nearly one fourth (24.7%) of the participants having a household income of less than $10,000 per year. There were 16.3% (*n* = 84) of participants reporting household income ranging from $20,000 to $34,999, with 13.2% (*n* = 84) reporting household income of $35,000 or more.
108

= 68) of respondents calculating household income between $35,000 and $49,999. Finally, 9.4.0% \( (n = 95) \) of respondents documented annual household income of $50,000 or more. Notably, of all the demographic items, including IPV experience, household income was the item that most elicited the utilization of the “prefer not to answer” response. There were a total of 12.4% \( (n = 64) \) of participants selecting this option or completely omitting the item.

In terms of educational attainment, 13.2% \( (n = 68) \) of participants did not complete high school, with 28.0% \( (n = 144) \) of respondents earning a high school diploma or GED. There were a total of 26.5% \( (n = 136) \) of participants who had some college, trade, or technical school education, with 22.4% \( (n = 115) \) earning a college degree. Additionally, 10.0% \( (n = 51) \) of respondents had some graduate level work, or had earned a graduate level degree. Table 10 outlines the household income and educational attainment demographics.

**IPV Experience and Help Seeking**

A total of 511 women provided data on their IPV experience with 71.4% \( (n = 374) \) reporting experience with at least 1 of the 5 types of violence explored, and 26.1% \( (n = 137) \) stating no lifetime IPV experience. Table 11 provides percentages on IPV experience by type. There were a total of 513 respondents who provided data on whether or not they sought help for IPV. Of those, 186 (36.3%) had sought help in some manner, 178 (34.7%) did not seek help, 6 (1.2%) were unsure if their behavior could be classified as help seeking, and 143 (29.9%) women believed they had not experienced IPV. Six women reported experiencing IPV but inconsistently reported no experience.
Table 10

*Household Income and Educational Attainment of Participants*

<table>
<thead>
<tr>
<th>Household Income</th>
<th>Total</th>
<th>Educational Attainment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n(%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $10,000</td>
<td>127 (24.7)</td>
<td>No Formal Education</td>
<td>2 (.4)</td>
</tr>
<tr>
<td>$10,000-$14,999</td>
<td>55 (10.7)</td>
<td>Some Grade School</td>
<td>2 (.4)</td>
</tr>
<tr>
<td>$15,000-$19,999</td>
<td>35 (6.8)</td>
<td>Completed Grade School</td>
<td>11 (2.1)</td>
</tr>
<tr>
<td>$20,000-$24,999</td>
<td>33 (6.4)</td>
<td>Some High School</td>
<td>53 (10.3)</td>
</tr>
<tr>
<td>$25,000-$34,999</td>
<td>51 (9.9)</td>
<td>Completed High School or GED</td>
<td>144 (28.0)</td>
</tr>
<tr>
<td>$35,000-$49,999</td>
<td>68 (13.2)</td>
<td>Some College/Trade/Technical School</td>
<td>136 (26.5)</td>
</tr>
<tr>
<td>$50,000-$74,999</td>
<td>43 (8.4)</td>
<td>Completed College</td>
<td>81 (15.8)</td>
</tr>
<tr>
<td>More than $75,000</td>
<td>52 (1.0)</td>
<td>Completed Trade/Technical School</td>
<td>34 (6.6)</td>
</tr>
<tr>
<td>Prefer Not to Answer</td>
<td>51 (9.9)</td>
<td>Some Graduate Work</td>
<td>9 (1.8)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Graduate Degree</td>
<td>42 (8.2)</td>
</tr>
</tbody>
</table>

*TOTAL* 515 (100)  *TOTAL* 514 (100)

*Note.* Respondents who did not answer the household income item (n = 13), and educational attainment item (n = 10) were excluded from this table.

in the help seeking item. The inconsistency with lifetime IPV experience and help seeking may be attributed to women not classifying their experience(s) as IPV, or could be a selection error. Within the IPV experience items, sexual aggression was the type of violence that produced the most “prefer not to answer” responses, with 5.8% (n = 29) of respondents selecting this option. Stalking resulted in the most “I do not know” responses, with 5.1% (n = 26) selecting this option.
Table 11

Intimate Partner Violence Experience by Type

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>I Do Not Know</th>
<th>Prefer Not to Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>Sexual Aggression</td>
<td>223</td>
<td>249</td>
<td>10</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>(43.6)</td>
<td>(48.7)</td>
<td>(1.9)</td>
<td>(5.8)</td>
</tr>
<tr>
<td>Stalking</td>
<td>222</td>
<td>259</td>
<td>26</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>(43.4)</td>
<td>(50.7)</td>
<td>(5.1)</td>
<td>(.78)</td>
</tr>
<tr>
<td>Physical Aggression</td>
<td>278</td>
<td>224</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>(54.4)</td>
<td>(43.8)</td>
<td>(1.4)</td>
<td>(.39)</td>
</tr>
<tr>
<td>Expressive Aggression</td>
<td>335</td>
<td>169</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>(65.6)</td>
<td>(33.1)</td>
<td>(1.1)</td>
<td>(.39)</td>
</tr>
<tr>
<td>Coercive Control</td>
<td>239</td>
<td>259</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(46.7)</td>
<td>(50.7)</td>
<td>(2.3)</td>
<td>(.20)</td>
</tr>
</tbody>
</table>

Additional Demographics

Of the total surveys producing usable data, 92.2% (n = 483) of respondents identified as heterosexual, with 6% (n = 23) of participants identifying as bisexual, 1.1% (n = 6) as lesbian/gay, and .2% (n = 1) as asexual. Among total participants, 37.4% (n = 196) reported they were employed, and 36.1% were unemployed (n = 189). Additionally, 24.4% (n = 128) described their employment based on their disability or retirement status, working from home as a stay-at-home mother or housewife, or if they were receiving governmental assistance. An examination of relationship status revealed that 46.0% (n = 241) of participants were married, 19.6% (n = 103) were separated, divorced, or widowed, and 12.0% (n = 63) were unmarried but living with their intimate partner. A total of 20.4% (107) of participants were single including no past relationship history, not currently dating, and currently dating. Additionally, 69.7% (n = 372) of the
A health status of fair (22.1%, \( n = 11 \)), poor (6.0%, \( n = 32 \)), and very poor (.2%, \( n = 1 \)) made up the remaining 28.3% of the respondents.

**Research Question #1**

**Perceptions of IPV in the Community**

To learn if IPV was seen as an issue of concern, participants were asked if they believed IPV was a problem in their community. On a scale of 1 (strongly disagree) to 4 (strongly agree), the analysis of 514 responses resulted in a mean of 3.21 with a standard deviation of .791. These findings illuminated a consensus that IPV is a topic of importance for this sample. Hypothesis #1 was accepted.

**Help Seeking and Appalachian Self-Identity**

A chi square test of independence was performed to examine the relation between Appalachian self-identity and help seeking behavior. There was no association between self-identifying as Appalachian and help seeking behavior, \( X^2(6, N = 368) = 9.034, p = .17 \). Thus, in this sample, Appalachian self-identity alone did not decrease the likelihood that a woman would seek help for IPV. Table 12 outlines the specific count for this Chi-square analysis. Hypothesis #2 was accepted.
Table 12

Chi Square for IPV Help Seeking Behavior and Appalachian Self-Identity

<table>
<thead>
<tr>
<th>Help-Seeking Behavior</th>
<th>Yes</th>
<th>No</th>
<th>Do Not Know</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>71</td>
<td>73</td>
<td>35</td>
<td>179</td>
</tr>
<tr>
<td>No</td>
<td>61</td>
<td>76</td>
<td>23</td>
<td>160</td>
</tr>
<tr>
<td>Do Not Know</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>No IPV Experience</td>
<td>2</td>
<td>2</td>
<td>8</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>140</td>
<td>160</td>
<td>68</td>
<td>368</td>
</tr>
</tbody>
</table>

Note. $X^2 (6, N = 368) = 9.034, p = .17$

Environment and Appalachian Self-Identity

Although not directly related to the proposed research questions and hypotheses, it was important to further explore the idea of Appalachian self-identity. A chi square test of independence was performed to examine the relation between Appalachian self-identity and environment. There was an identified association between self-identifying as Appalachian and living in a rural environment, $X^2(4, N = 514) = 12.964, p = .011$.

Therefore, in this sample, living in a rural environment increased the likelihood a woman would self-identify as Appalachian. Additionally, living in an urban, and to a lesser extent, suburban environment increased the likelihood a woman would reject the Appalachian moniker. Table 13 outlines the specific count for this Chi-square analysis.
Table 13

Chi Square for Environment (Rural, Urban, and Suburban) and Appalachian Self-Identity

<table>
<thead>
<tr>
<th>Environment</th>
<th>Yes</th>
<th>No</th>
<th>Do Not Know</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>86</td>
<td>76</td>
<td>30</td>
<td>192</td>
</tr>
<tr>
<td>Urban</td>
<td>35</td>
<td>61</td>
<td>35</td>
<td>131</td>
</tr>
<tr>
<td>Suburban</td>
<td>68</td>
<td>79</td>
<td>44</td>
<td>191</td>
</tr>
<tr>
<td>Total</td>
<td>189</td>
<td>216</td>
<td>109</td>
<td>514</td>
</tr>
</tbody>
</table>

Note.  $X^2 (4, N = 514) = 12.964, p = .011$

Research Question #2

Health Belief Model Findings

Perceived benefits, barriers, susceptibility, severity, and self-efficacy subscales were analyzed against each independent variable of interest. An independent samples $t$-test was conducted to examine the HBM constructs against IPV experience, with experience categorized as yes (past experience) or no (included no past experience and do not know). Significant differences were revealed for the perceived severity subscale for IPV experience ($M=17.43, SD=2.12$) and no IPV experience ($M=16.74, SD=2.097$); $t(518) = 3.29, p = .001$.

Significant differences surfaced for the perceived benefits subscale for IPV experience ($M = 13.17, SD = 1.95$) and no IPV experience ($M = 12.53, SD = 1.698$); $t(518) = 3.52, p = .001$. Additionally, the perceived susceptibility subscale was significant for IPV experience ($M = 8.83, SD = 2.48$) and no IPV experience ($M = 7.51, SD = 2.40$);
It can be concluded from these findings that women who had experienced IPV believed IPV was a serious condition, there were benefits to seeking help for IPV, and they felt more susceptible to experiencing IPV than women who had not experienced IPV in their lifetime. Refer to Table 14 for additional t-test statistics.

Table 14

Independent Samples T-Test for Health Belief Model and IPV Experience

<table>
<thead>
<tr>
<th>Constructs</th>
<th>IPV Experience</th>
<th>t</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Severity</td>
<td>17.43 (2.120)</td>
<td>16.74 (2.097)</td>
<td>3.292</td>
</tr>
<tr>
<td>Perceived Benefits</td>
<td>13.17 (1.950)</td>
<td>12.53 (1.698)</td>
<td>3.515</td>
</tr>
<tr>
<td>Perceived Susceptibility</td>
<td>8.83 (2.480)</td>
<td>7.51 (2.398)</td>
<td>5.360</td>
</tr>
<tr>
<td>Perceived Barriers</td>
<td>14.08 (2.695)</td>
<td>14.33 (2.624)</td>
<td>-.894</td>
</tr>
<tr>
<td>Perceived Self-Efficacy</td>
<td>8.44 (1.691)</td>
<td>8.77 (1.426)</td>
<td>-1.949</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. \( \mu = \text{mean}, \ \sigma = \text{standard deviation}, \ * = p \leq .001. \) IPV experience sample total \( N = 373, \) No IPV experience sample total \( N = 137. \)

A one-way ANOVA was conducted to compare HBM subscales to Appalachian self-identity. There were significant differences for perceived severity scores, \( F(2, 517) = 4.057, p = 0.018, \) and perceived self-efficacy scores, \( F(2, 517) = 4.142, p = .016 \) (see Table 15). Since significant differences existed, a post hoc comparison using the Tukey HSD test was performed. Results indicated that the mean score for the perceived severity subscale for women who self-identified as Appalachian \( (M = 17.54, SD = 2.07) \) was
Table 15

ANOVA for Health Belief Model and Appalachian Self-Identity

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Between groups</td>
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<td>.018</td>
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<tr>
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<td>517</td>
<td>2541.191</td>
<td>4.915</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>519</td>
<td>2581.075</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benefits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>2</td>
<td>11.683</td>
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<td>.201</td>
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<td>517</td>
<td>1877.191</td>
<td>3.631</td>
<td></td>
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</tr>
<tr>
<td>Total</td>
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<td></td>
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<tr>
<td>Susceptibility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>2</td>
<td>12.134</td>
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<td>6.564</td>
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<td>3405.644</td>
<td></td>
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</tr>
<tr>
<td>Barriers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>2</td>
<td>7.655</td>
<td>3.827</td>
<td>.475</td>
<td>.622</td>
</tr>
<tr>
<td>Within groups</td>
<td>517</td>
<td>4168.789</td>
<td>8.063</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>519</td>
<td>4176.444</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>2</td>
<td>23.494</td>
<td>11.747</td>
<td>4.142</td>
<td>.016</td>
</tr>
<tr>
<td>Within groups</td>
<td>517</td>
<td>1466.313</td>
<td>2.836</td>
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</tr>
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<td>Total</td>
<td>519</td>
<td>1489.808</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. * = significant difference at the .01 level.

significantly different from women who did not identify as Appalachian \((M = 19.99, SD = 2.13)\), or did not know if they were Appalachian \((M = 17.18, SD = 2.23)\). Additionally, the mean score for the perceived self-efficacy subscale for women who did not know if they were Appalachian was significantly different \((M = 8.09, SD = 1.91)\) from women who accepted the title \((M = 8.50, SD = 1.65)\), or women who rejected it \((M = 8.60, SD = 1.59)\). See Table 16 for the post hoc comparison.
### Table 16

**ANOVA Between Groups for Health Belief Model and Appalachian Self-Identity**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Self-Identity</th>
<th>Self-Identity</th>
<th>Mean Diff.</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>.549</td>
<td>.219</td>
<td><strong>.013</strong></td>
<td>.12 .98</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Do Not Know</td>
<td>.622</td>
<td>.267</td>
<td>.020</td>
<td>.10 1.15</td>
</tr>
<tr>
<td>Severity</td>
<td>No</td>
<td>Yes</td>
<td>-.549</td>
<td>.219</td>
<td>* .013</td>
<td>-.98 -.12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Do Not Know</td>
<td>.074</td>
<td>.259</td>
<td>.777</td>
<td>-.44 .58</td>
</tr>
<tr>
<td></td>
<td>Do Not Know</td>
<td>Yes</td>
<td>-.622</td>
<td>.267</td>
<td>.020</td>
<td>-1.15 -.10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>.074</td>
<td>.259</td>
<td>.777</td>
<td>-.58 .44</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>Yes</td>
<td>No</td>
<td>-.160</td>
<td>.167</td>
<td>.377</td>
<td>-.49 .17</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Do Not Know</td>
<td>.406</td>
<td>.203</td>
<td>* .046</td>
<td>.01 .80</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
<td>.160</td>
<td>.167</td>
<td>.337</td>
<td>-.17 .49</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Do Not Know</td>
<td>.566</td>
<td>.197</td>
<td>* .046</td>
<td>.18 .95</td>
</tr>
<tr>
<td></td>
<td>Do Not Know</td>
<td>Yes</td>
<td>-.406</td>
<td>.203</td>
<td>* .046</td>
<td>-.80 -.01</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>-.566</td>
<td>.197</td>
<td>*** .004</td>
<td>-.95 -.18</td>
</tr>
</tbody>
</table>

*Note.* * = significant difference at the .05 level. ** = significant difference at the .01 level. *** = significant difference at the .005 level.

In summary, women who self-identified as Appalachian perceived IPV to be a more serious health condition when compared to the other groups. This finding suggested that self-identifying as Appalachian did not prevent a women from recognizing the severity of violence between intimate partners. Women who did not know if they were Appalachian had lower self-efficacy scores than did women who self-identified as Appalachian or disregarded the title.
The only significant difference when comparing the HBM constructs to living environment resulted for the perceived susceptibility subscale, $F(2, 517)=7.668, p=.001$ (see Table 17). The mean score for women reporting residence in a “city” (urban) environment ($M = 9.14, SD = 2.76$) was significantly different from women who reported living in a “country” (rural) environment ($M = 8.05, SD = 2.35$), or women who

Table 17

ANOVA for Health Belief Model and Environment (Rural, Urban, Suburban)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>2</td>
<td>4.378</td>
<td>2.189</td>
<td>.439</td>
<td>.645</td>
</tr>
<tr>
<td>Within groups</td>
<td>517</td>
<td>2576.697</td>
<td>4.984</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>519</td>
<td>2581.075</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Benefits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>2</td>
<td>5.222</td>
<td>2.611</td>
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<td>.489</td>
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<td>1883.622</td>
<td>3.643</td>
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<tr>
<td>Total</td>
<td>519</td>
<td>1888.844</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Susceptibility</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>2</td>
<td>98.107</td>
<td>49.054</td>
<td>7.668</td>
<td>.001</td>
</tr>
<tr>
<td>Within groups</td>
<td>517</td>
<td>3307.537</td>
<td>6.398</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>519</td>
<td>3405.644</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barriers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>2</td>
<td>12.398</td>
<td>6.199</td>
<td>.770</td>
<td>.464</td>
</tr>
<tr>
<td>Within groups</td>
<td>517</td>
<td>4164.046</td>
<td>8.045</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>519</td>
<td>4176.444</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>2</td>
<td>0.431</td>
<td>0.216</td>
<td>.075</td>
<td>.928</td>
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<td>2.881</td>
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</tr>
<tr>
<td>Total</td>
<td>519</td>
<td>1489.808</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. * = significant difference at the .001 level.
resided in a “neighborhood” (suburban) environment \( (M = 8.33, SD = 2.54) \). These findings suggested that urban-dwelling participants perceived themselves to be more susceptible to experiencing IPV than did women living in rural or suburban settings. See Table 18 for the complete analysis.

Table 18

*ANOVA Between Groups for Health Belief Model and Environment (Rural, Urban, Suburban)*

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Type of Environment</th>
<th>Type of Environment</th>
<th>Mean</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
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</thead>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Susceptibility</td>
<td>Country/Farm</td>
<td>City</td>
<td>-1.097</td>
<td>.284</td>
<td>**.000</td>
<td>-1.66</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neighborhood</td>
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<td>.257</td>
<td>.265</td>
<td>-.79</td>
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<tr>
<td></td>
<td>City</td>
<td>Country/Farm</td>
<td>1.097</td>
<td>.284</td>
<td>**.000</td>
<td>.54</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>.810</td>
<td>.285</td>
<td>.005</td>
<td>.25</td>
</tr>
<tr>
<td></td>
<td>Neighborhood</td>
<td>Country/Farm</td>
<td>.287</td>
<td>.257</td>
<td>.265</td>
<td>-.22</td>
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<td></td>
<td>City</td>
<td>-.810</td>
<td>.285</td>
<td>.005</td>
<td>-1.37</td>
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</tbody>
</table>

*Note. * = significant difference at the .005 level. **Significant at the .001 level.

A one-way ANOVA showed that the difference in perceived susceptibility to IPV experience between the 60+ age group \( (M = 7.58, SD = 2.415) \), and all other age groups including 18-29 \( (M = 8.75, SD = 2.46) \), 30-39 \( (M = 8.81, SD = 2.671) \), 40-49 \( (M = 8.41, SD = 2.49) \), and 50-59 \( (M = 8.40, SD = 2.58) \) was statistically significant, \( F(4,517)=3.41, p = 0.009 \). The findings indicated that the 60+ age group perceived themselves to be less susceptible to experiencing IPV in the future than all other age groups. Although not
statistically significant, the 18 to 29 and 30 to 39 age groups reported the highest rates of perceived susceptibility. No other significant differences were identified for the additional HBM constructs. (See Table 19).

Table 19

ANOVA for Health Belief Model and Age

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
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<td>Severity</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
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<td>.052</td>
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<td>517</td>
<td>2549.262</td>
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<td>Total</td>
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<td></td>
<td></td>
</tr>
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<td></td>
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<tr>
<td>Barriers</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
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<td>7.655</td>
<td>12.565</td>
<td>1.529</td>
<td>.192</td>
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<td>Within groups</td>
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<td>4168.789</td>
<td>8.218</td>
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<td></td>
</tr>
<tr>
<td>Self-Efficacy</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>4</td>
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<td>.914</td>
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<td>1517.152</td>
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<td>521</td>
<td>1520.010</td>
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</tr>
</tbody>
</table>

Note. * = significance at the .010 level.

Additionally, the one-way ANOVA revealed that there was a statistically significant difference in perceived susceptibility to IPV experience between participants whose annual household income was less than $10,000 ($M = 9.33, SD = 2.582), and all
other income groups including: $10,000-$19,999 (M = 8.79, SD = 2.675), $20,000-$34,999 (M = 8.04, SD = 2.635), $35,000-$49,999 (M = 7.71, SD = 2.052), and $50,000+ (M = 7.46, SD = 2.324), F(4,459)=10.109, p=001. Participants whose annual household income was $10,000 or less perceived themselves to be significantly more susceptible to experiencing IPV than did all other income groups. No other significant differences were identified for the remaining HBM constructs (see Table 20).

Table 20

ANOVA for Health Belief Model and Household Income

<table>
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<tr>
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<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>3.209</td>
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<td>.636</td>
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<td>5.037</td>
<td></td>
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</tr>
<tr>
<td>Total</td>
<td>463</td>
<td>2324.722</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Benefits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>4</td>
<td>10.427</td>
<td>2.607</td>
<td>.717</td>
<td>.581</td>
</tr>
<tr>
<td>Within groups</td>
<td>459</td>
<td>1668.332</td>
<td>3.635</td>
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<td></td>
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<tr>
<td>Total</td>
<td>463</td>
<td>1678.759</td>
<td></td>
<td></td>
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<tr>
<td>Susceptibility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>4</td>
<td>250.511</td>
<td>62.628</td>
<td>10.109</td>
<td>.000</td>
</tr>
<tr>
<td>Within groups</td>
<td>459</td>
<td>2843.731</td>
<td>6.195</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td>463</td>
<td>3094.241</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barriers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>4</td>
<td>8.537</td>
<td>2.134</td>
<td>.261</td>
<td>.903</td>
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<tr>
<td>Within groups</td>
<td>459</td>
<td>3753.685</td>
<td>8.178</td>
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<tr>
<td>Total</td>
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<td>3762.222</td>
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<tr>
<td>Self-Efficacy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>4</td>
<td>21.774</td>
<td>5.444</td>
<td>1.896</td>
<td>.110</td>
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<tr>
<td>Within groups</td>
<td>459</td>
<td>1318.051</td>
<td>2.872</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>463</td>
<td>1339.825</td>
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</tbody>
</table>

Note. * = significant at the .001 level.
The one-way ANOVA analysis revealed significant differences when examining the HBM constructs and educational attainment. First, participants who had completed college ($M = 17.59$, $SD = 2.027$) or had some graduate study or above ($M = 18.02$, $SD = 1.955$), had higher perceived severity means than individuals who did not complete high school ($M = 16.62$, $SD = 2.345$), had earned a high school diploma or GED ($M = 16.68$, $SD = 2.430$), or had some college education ($M = 17.29$, $SD = 2.051$), $F(4, 515) = 6.052$, $p = .001$.

Second, participants who had completed college ($M = 13.17$, $SD = 1.879$) or had some graduate study or above ($M = 13.71$, $SD = 1.684$), had higher perceived benefits means than did individuals who did not complete high school ($M = 12.44$, $SD = 1.866$), had earned a high school diploma or GED ($M = 12.76$, $SD = 1.884$), or had some college education ($M = 13.04$, $SD = 2.003$), $F(4, 515) = 4.144$, $p = .003$.

Lastly, participants who had completed college ($M = 8.72$, $SD = 1.450$) or had some graduate study or above ($M = 8.71$, $SD = 1.486$) had higher perceived self-efficacy means than did women who had not completed high school ($M = 8.08$, $SD = 1.648$), had earned a high school diploma or GED ($M = 8.20$, $SD = 1.822$), or who had some college education ($M = 8.68$, $SD = 1.788$), $F(4, 515) = 3.325$, $p = .011$.

The findings indicated that educational attainment played a key role in IPV perception, specifically for severity, benefits, and self-efficacy subscales. Participants who had completed college or had at least some graduate study, perceived more benefits to addressing IPV issues, had higher self-efficacy scores, and believed IPV to be a serious health condition when compared to all other educational attainment groups (see Table
Because significant differences were identified for each independent variable examined, hypothesis #3 was rejected.

Table 21

ANOVA for Health Belief Model and Educational Attainment

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>4</td>
<td>115.886</td>
<td>28.972</td>
<td>6.052</td>
<td>***.000</td>
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<tr>
<td>Within groups</td>
<td>515</td>
<td>2465.189</td>
<td>4.787</td>
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<td>Total</td>
<td>519</td>
<td>2581.075</td>
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<td></td>
<td></td>
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<tr>
<td>Benefits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>4</td>
<td>58.902</td>
<td>14.726</td>
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<td>**.003</td>
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<tr>
<td>Within groups</td>
<td>515</td>
<td>1829.942</td>
<td>3.553</td>
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</tr>
<tr>
<td>Total</td>
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<td>1888.844</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Susceptibility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>4</td>
<td>60.992</td>
<td>15.248</td>
<td>2.348</td>
<td>.053</td>
</tr>
<tr>
<td>Within groups</td>
<td>515</td>
<td>3344.652</td>
<td>6.494</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td>519</td>
<td>3405.644</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barriers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>4</td>
<td>31.779</td>
<td>7.945</td>
<td>.987</td>
<td>.987</td>
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<tr>
<td>Within groups</td>
<td>515</td>
<td>4144.665</td>
<td>8.048</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>519</td>
<td>4176.444</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Efficacy</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>4</td>
<td>37.503</td>
<td>9.376</td>
<td>3.325</td>
<td>*.011</td>
</tr>
<tr>
<td>Within groups</td>
<td>515</td>
<td>1452.305</td>
<td>2.820</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>519</td>
<td>1489.808</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. * = significant at the .01 level. ** = significance at the .005 level. *** = significance at the .001 level.

Predicting IPV Behavior Using the Health Belief Model

A logistic regression was performed to ascertain the efficacy of the HBM constructs in predicting IPV experience and likelihood of seeking help if IPV were experienced. The HBM was statistically significant in predicting IPV experience
(X²=52.617, \(p < .001\) with df = 5) and help-seeking behavior (X² = 9.640, \(p = .086\) with df = f). Overall, 74.1% of cases for IPV experience were correctly classified with 58.1% of cases for help-seeking behavior accurately predicted. The Wald criterion demonstrated that of the five HBM constructs, three subscales were statistically significant predictors of IPV experience: perceived severity (\(p = .005\)), perceived susceptibility (\(p = .001\)), and perceived barriers (\(p = .031\)). The lone significant prediction contribution to help seeking behavior was the perceived barriers subscale (\(p = .041\); see Table 22).

Since more than one HBM construct proved to be a significant predictor of IPV experience, a Spearman’s rank-order correlation was run to further examine the relationship between IPV experience and perceived severity, perceived susceptibility, and perceived barriers.

Results revealed that IPV experience was significantly correlated with perceived susceptibility \([r(508)=-.246, p = .001]\) and perceived severity \([r(508)=-.155, p = .001]\). Perceived barriers \([r(508)=.054, p = .221]\) was not correlated with susceptibility and severity, but was significant to predicting IPV experience (see Table 23).
Table 22

*Logistic Regression Predicting Likelihood of IPV Experience and Help-Seeking Behaviors Based on Health Belief Model Constructs*

<table>
<thead>
<tr>
<th>IPV Experience</th>
<th>B</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Severity</td>
<td>-.156</td>
<td>.055</td>
<td>8.116</td>
<td>1</td>
<td>**.004</td>
</tr>
<tr>
<td>Perceived Benefits</td>
<td>-.115</td>
<td>.063</td>
<td>3.325</td>
<td>1</td>
<td>.068</td>
</tr>
<tr>
<td>Perceived Susceptibility</td>
<td>-.260</td>
<td>.051</td>
<td>25.659</td>
<td>1</td>
<td>.001</td>
</tr>
<tr>
<td>Perceived Barriers</td>
<td>.098</td>
<td>.045</td>
<td>4.679</td>
<td>1</td>
<td>*.031</td>
</tr>
<tr>
<td>Perceived Self-Efficacy</td>
<td>.062</td>
<td>.076</td>
<td>.662</td>
<td>1</td>
<td>.416</td>
</tr>
<tr>
<td>Constant</td>
<td>3.326</td>
<td>1.434</td>
<td>5.382</td>
<td>1</td>
<td>*.020</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Help-Seeking Behavior</th>
<th>B</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Severity</td>
<td>.018</td>
<td>.059</td>
<td>.097</td>
<td>1</td>
<td>.755</td>
</tr>
<tr>
<td>Perceived Benefits</td>
<td>-.065</td>
<td>.064</td>
<td>1.048</td>
<td>1</td>
<td>.306</td>
</tr>
<tr>
<td>Perceived Susceptibility</td>
<td>-.088</td>
<td>.049</td>
<td>3.235</td>
<td>1</td>
<td>.072</td>
</tr>
<tr>
<td>Perceived Barriers</td>
<td>.089</td>
<td>.044</td>
<td>4.163</td>
<td>1</td>
<td>*.041</td>
</tr>
<tr>
<td>Perceived Self-Efficacy</td>
<td>-.067</td>
<td>.073</td>
<td>.858</td>
<td>1</td>
<td>.354</td>
</tr>
<tr>
<td>Constant</td>
<td>.510</td>
<td>1.467</td>
<td>.121</td>
<td>1</td>
<td>.728</td>
</tr>
</tbody>
</table>

*Note.*  * = significant at the .05 level. ** = significant at the .005 level.
### Table 23

*Correlations Among IPV Experience and Health Belief Model Constructs*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Correlation Coefficient</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPV Experience</td>
<td>511</td>
<td>1.00</td>
<td>-</td>
</tr>
<tr>
<td>Perceived Severity</td>
<td>510</td>
<td>*-.155</td>
<td>.001</td>
</tr>
<tr>
<td>Perceived Susceptibility</td>
<td>510</td>
<td>*-.246</td>
<td>.001</td>
</tr>
<tr>
<td>Perceived Barriers</td>
<td>510</td>
<td>.054</td>
<td>.221</td>
</tr>
</tbody>
</table>

*Note. * = significant at the .001 level.

These findings demonstrated that the more susceptible a woman felt to experiencing IPV, the more serious she believed the experience to be, and the more perceived barriers to help seeking, the more likely it was that she had experienced IPV. The correlation outcomes established that IPV experience was associated with perceived threat (perceived susceptibility and perceived severity), but not perceived barriers. However, perceived barriers did serve as a predictor of whether or not a woman experienced IPV, and from there, whether or not she sought help. The more perceived barriers, the less likely a woman was to seek help to prevent, stop, or escape IPV.

**Research Question #3: Severity of Behavior Rankings**

In order to learn if there was a perception difference based on type of violence perpetrated, Groups 1 through 8 were constructed. Groups were created by using the IPV items in the *NISVS*, and randomly assigning categorical statements to each group. Each group contained five statements denoting a behavior categorized as either physical,
sexual, or expressive aggression, coercive control, or stalking behavior. There were eight statements for each category, making eight groups.

A descriptive analysis was run to evaluate the mean and standard deviation of each statement in each group based on the rankings of 453 respondents. From these measures of central tendency, the rank order of each type of violence was determined. Within each group, the behavior statements representing physical aggression (5 out of 8 groups) and sexual aggression (3 out of 8 groups) were ranked as most harmful. The mean scores for each type of violence were calculated to determine which type of violence was rated most harmful overall. These scores ranged from 1 being seen as most harmful to 4 rated as least harmful. The order was as follows: physical aggression ($M = 1.98$), sexual aggression ($M = 2.92$), coercive control ($M = 3.00$), expressive aggression ($M = 3.31$), and stalking behavior ($M = 3.93$). Table 24 provides means organized by group and type of violence.

Because the behavior ranking items (groups 1–8) were nonparametric, the Mann-Whitney U Test was used to analyze if there was a significant difference in perception of severity within the ranking based on a woman’s experience with IPV. There was no significant differences based on IPV experience; therefore, hypothesis #4 was accepted.
Table 24

Severity of Behavior Mean Rankings by Group and Type of Violence

<table>
<thead>
<tr>
<th>Group</th>
<th>Physical Aggression</th>
<th>Sexual Aggression</th>
<th>Stalking</th>
<th>Coercive Control</th>
<th>Expressive Aggression</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.89 (1.37)</td>
<td>3.22 (1.18)</td>
<td>3.91 (1.31)</td>
<td>2.84 (1.18)</td>
<td>3.14 (1.22)</td>
</tr>
<tr>
<td>2</td>
<td>2.58 (1.10)</td>
<td>1.69 (1.31)</td>
<td>3.84 (1.19)</td>
<td>3.42 (1.12)</td>
<td>3.46 (1.20)</td>
</tr>
<tr>
<td>3</td>
<td>2.97 (1.11)</td>
<td>1.95 (1.22)</td>
<td>4.35 (1.27)</td>
<td>3.18 (.89)</td>
<td>3.45 (.92)</td>
</tr>
<tr>
<td>4</td>
<td>1.86 (1.11)</td>
<td>2.05 (1.13)</td>
<td>4.44 (1.24)</td>
<td>3.19 (.86)</td>
<td>3.47 (.84)</td>
</tr>
<tr>
<td>5</td>
<td>2.47 (1.12)</td>
<td>1.81 (1.31)</td>
<td>3.73 (1.26)</td>
<td>3.43 (1.05)</td>
<td>3.55 (1.30)</td>
</tr>
<tr>
<td>6</td>
<td>2.10 (1.40)</td>
<td>3.62 (1.46)</td>
<td>3.28 (1.16)</td>
<td>3.46 (1.26)</td>
<td>2.53 (1.13)</td>
</tr>
<tr>
<td>7</td>
<td>1.71 (1.27)</td>
<td>3.34 (1.12)</td>
<td>4.16 (1.31)</td>
<td>2.45 (.98)</td>
<td>3.34 (1.17)</td>
</tr>
<tr>
<td>8</td>
<td>1.69 (1.19)</td>
<td>3.95 (1.23)</td>
<td>3.75 (1.03)</td>
<td>2.08 (.89)</td>
<td>3.52 (.96)</td>
</tr>
<tr>
<td>TOTAL μ</td>
<td>1.9825</td>
<td>2.915</td>
<td>3.933</td>
<td>3.006</td>
<td>3.308</td>
</tr>
</tbody>
</table>

Note. Numbers in parentheses represent standard deviation.

Research Question #4: Health Belief Model Cues to Action

Through the course of the literature review, a collection of common cues to action for IPV help-seeking were identified. These nine cues were descriptively analyzed to determine which cues would most encourage a woman in Appalachian Ohio to seek help if she were experiencing IPV. Items were ranked from 1 to 9. The lower a statement was ranked by a respondent, the more important that cue was perceived to be by that individual. Each cue statement was ultimately ranked based on the total number of times it was listed as 1 out of 9 by each of the participants. The lower a statement was ranked, the more times that cue was recorded number 1.
A child being in the home \((M = 1.85, SD = 1.87)\) was the most influential cue to action followed by: family urging \((M = 3.42, SD = 1.98)\), friends urging \((M = 3.89, SD = 1.89)\), a family history of violence \((M = 4.89, SD = 2.36)\), doctor recommending \((M = 5.01, SD = 2.12)\), friends/family sharing information about IPV \((M = 5.05, SD = 1.84)\), IPV information found online \((M = 6.60, SD = 1.94)\), attending a talk in the community about IPV \((M = 7.09, SD = 1.81)\), and getting IPV information from the Internet, radio, or television \((M = 7.15, SD = 1.82)\). The results suggested that cues are most persuasive when family and friends play an active role, and least influential when cues are not personalized. The findings also indicated that a primary care physician may play a more important part in addressing IPV than previous research suggested. These findings supported hypothesis #5, so it was accepted. Table 25 provides the complete rank order of items including means and standard deviations.

Table 25

*Rank Order of Cues to Action if IPV Were Experienced*

<table>
<thead>
<tr>
<th>Rank Order</th>
<th>Cue</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A child being in my home where IPV is taking place</td>
<td>1.85</td>
<td>1.873</td>
</tr>
<tr>
<td>2</td>
<td>Family urging me to seek help</td>
<td>3.42</td>
<td>1.981</td>
</tr>
<tr>
<td>3</td>
<td>Friends urging me to seek help</td>
<td>3.89</td>
<td>1.889</td>
</tr>
<tr>
<td>4</td>
<td>Having a person family history of IPV</td>
<td>4.89</td>
<td>2.358</td>
</tr>
<tr>
<td>5</td>
<td>My doctor recommending the IPV be addressed</td>
<td>5.01</td>
<td>2.121</td>
</tr>
<tr>
<td>6</td>
<td>Friends/family sharing information about IPV with me</td>
<td>5.05</td>
<td>1.841</td>
</tr>
<tr>
<td>7</td>
<td>Information about IPV found online</td>
<td>6.60</td>
<td>1.937</td>
</tr>
<tr>
<td>8</td>
<td>Attending a talk in my community about IPV</td>
<td>7.09</td>
<td>1.812</td>
</tr>
<tr>
<td>9</td>
<td>Getting IPV information from the radio, on TV, or in the newspaper</td>
<td>7.15</td>
<td>1.823</td>
</tr>
</tbody>
</table>
Overall, findings from the current study demonstrated how factors such as household income and level of educational attainment played a substantial part in IPV experience, attitudes, and behaviors. A household income of less than $10,000 increased a woman’s perceived susceptibility to experiencing IPV while completing schooling beyond high school proved to improve a woman’s perception of the severity of IPV, the benefits to addressing the issue, and enhanced a woman’s confidence in her ability to do so.

Results showed how IPV experience (or no experience) may alter perceptions of susceptibility, severity, and benefits. A perceived threat was identified by women who had experienced IPV with recognition of benefits existing to managing IPV matters. However, of the 71% of women who experienced some type of violence, only 36% sought help. This finding demonstrated that something beyond a perceived threat and benefits to self must exist for help seeking to take place.

Results also presented consistency with seminal findings regarding IPV experience in Appalachia, the effect of labeling one’s self as Appalachian, and the importance of family and friends in addressing IPV issues. Appalachian self-identity was strongly associated with living in a rural environment, and IPV was seen as a more serious issue in these areas than in suburban and urban locations. However, urban-dwelling Appalachian women felt more susceptible to experiencing IPV compared to the other groups. A child being in the home, family urging, and friends urging served as the top cues to action for a woman to address IPV issues.
Areas of contradiction were highlighted, specifically in regards to help seeking behavior in Appalachia, and the unimportance of primary care physicians. While help seeking rates were low overall, Appalachian self-identity alone did not decrease the likelihood that a woman living in the Southeastern region of Appalachian Ohio would seek help for IPV. Also, a doctor recommending a woman address IPV issues was in the top five cues to action demonstrating that health care professionals were seen as a trusted resource and may be a crucial link to reducing IPV prevalence and increasing help seeking rates.

Last, the HBM was proven to be an effective theoretical underpinning for evaluating IPV-related health behaviors and perceptions. The model accurately predicted IPV experience with the perceived susceptibility, severity, and barriers constructs being the strongest predictors. Perceived susceptibility and perceived severity were strongly correlated. This finding further validates the concept of perceived threat. Additionally, the model accurately predicted help seeking behavior with perceived barriers being the strongest predictor of help seeking. The following chapter includes a discussion of the presented results comprising study limitations, suggestions for future research, and implications and application of the findings.
CHAPTER V
DISCUSSION

Culture is felt and seen. Learned and practiced. Disputed and defended. Criticized and celebrated. Consequently, it was imperative to gather information about the perceptions and beliefs of individuals within the communities being investigated. These findings may ultimately be useful to foster change to decrease rates, severity, and consequences of IPV for the participating sample. The aforementioned research findings and proceeding discussion should by no means be deemed as the entire picture of IPV in Appalachia. However, the findings from the current research clearly presented a snapshot of factors that may contribute to IPV attitudes, experiences, and behaviors in the region.

The purpose of this study was to investigate intimate partner violence (IPV) in nine Appalachian Ohio counties by applying the constructs of the HBM (Hochbaum, 1958; Rosenstock, 1974b; Rosenstock et al., 1988) as the theoretical underpinning. A multi-scale instrument was used to explore participant attitudes toward IPV as a public health and personal concern. Additionally, the instrument examined participant ranking of physical aggression, sexual aggression, expressive aggression, coercive control, and stalking IPV behaviors based on perceived severity. Demographics included age, household income, educational attainment, environment (rural, suburban, urban), Appalachian self-identity, and self-reported lifetime IPV experience. Although numerous studies have explored cultural attitudes and IPV in Appalachia, no study has examined this topic by applying the HBM as the theoretical
underpinning. Since attitude directly influences behavior, the application of the HBM provided a new perspective on this subject. By exploring the perceptions of women living in the Southeastern region of Appalachian Ohio, findings from the current study contributed to existing knowledge about IPV in Appalachia. Salient findings, study limitations, implications for future research, and recommendations for health professionals are discussed in the following sections.

**Appalachian Culture Versus Self-Identity**

Not all people in the Appalachian region live in a rural environment, within a mountainous area, or in poverty. As such, it could be argued that the basic components that define Appalachian culture only exist within a very specific context. Because of the diversity in the people and environment in Southeastern Appalachian Ohio, examining the concept of culture needed to be open for modern day beliefs, values, and circumstances. To achieve this, participants were asked, “Do you consider yourself to be Appalachian?” Keefe (2008) stated that, “Appalachian” is a term used by scholars, and self-identification as Appalachian is not necessary (Reiter, Katz, Ferketich, Ruffin, & Paskett, 2011) to consider culture of individuals in the region. With just over 37% of respondents self-identifying as Appalachian, Keefe’s (2008) belief could be supported alone by this finding. Obermiller and Maloney (2011) stated however, the notion of identity should not be rooted in some abstract concept, but on how people are currently interpreting their lives in social, economic, and political terms. In this way the concept of identity [as opposed to culture] allows for structural analysis, including the implications of social class. (p. 11)
Asking a respondent if she defined herself as Appalachian allowed for the examination of culture from a unique perspective. The real question was does accepting or rejecting this label play any part in establishing values, beliefs, or defining attitudes toward IPV? The examination of self-identity aided in learning how a woman’s perspectives may be connected to the environment in which she lived and how this was associated with commonly accepted cultural values.

There were three key tenets worthy of further elucidation. The first discovery was that the type of environment a woman lived in played a significant role in her self-identity. Women in rural areas were more likely to embrace the Appalachian label whereas women in urban areas were more likely to spurn it. This finding suggested that Appalachian culture is directly connected to rurality, and considering rural research when examining IPV in rural Appalachia is an acceptable practice. However, since the urban-dwelling Appalachian women in this current study rejected the Appalachian moniker, special consideration should be paid to the fact that their IPV experiences and needs are different.

The next finding demonstrated that women who self-identified as Appalachian perceived IPV to be a more serious health condition when compared to women who did not identify as Appalachian. Previous research (Contos Shoaf, 2004; Logan et al., 2004) suggested that IPV was viewed as a normality, and may not be openly acknowledged as harmful. The current study findings suggested that self-identifying as Appalachian did not alter a woman’s attitude toward severity of violence between intimate partners contesting the preceding finding. It may also suggest that the experiences of women in
the region are indeed more severe than in other locales as suggested by past research (Pruitt, 2008; Vinton, 2011; Websdale & Johnson, 1998, 2003). Also of interest was whether or not Appalachian self-identity played any role in help seeking behavior. Appalachian self-identity alone did not decrease the likelihood that a woman would seek help for IPV. With only 36% of women who experienced IPV seeking help, it is evident that other factors are at play impacting this process.

**The Connection Between Education, Poverty, and Health Status**

The analysis of the HBM constructs, level of educational attainment, and household income provided thought-provoking results for reflection. Women from the current research who had completed college or had at least some graduate level study believed IPV to be a serious health condition, and perceived more benefits to addressing IPV issues than women with less education. Furthermore, these women had higher perceived self-efficacy scores, indicating that continued education increased confidence and may have placed a woman in a more secure position to defend herself against IPV. Education cannot, per se, prevent an individual from experiencing IPV. It can, however, provide opportunities for building human capital such as knowledge, attitude change, life skills, work experience, and financial security through improving employment prospects. The aforementioned may be necessary elements to recognizing IPV warning signs within a personal relationship and for addressing IPV if it were to occur. The current study findings supported the notion that educational attainment can be a risk factor (CDC, 2013; WHO, 2012), and contributed that it also served as a protective factor (Abramsky et al., 2013). With 41.2% of the current study sample having completed high school,
earned a GED, or received less than a high school education, the association between educational attainment and IPV perceptions warrants further evaluation.

Besides earned education, a woman’s socioeconomic status provided further insight. Results gathered in the *National Crime Victimization Survey* indicated that women with incomes of less than $10,000 were more likely to be abused by a partner than women with higher incomes (in Staggs & Riger, 2005). The current study sample included 24.7% of respondents reporting annual household income below $10,000. Findings revealed that respondents whose annual household income was $10,000 or less perceived themselves to be significantly more susceptible to experiencing IPV than did all other income groups. Staggs and Riger (2005) found that individuals with income below $25,000 were almost twice as likely to experience abuse. The current study had 23.9% of respondents stating an annual household income below $25,000. The high incidence of low-income participants may have played a part in the perception and experience of IPV within the sample. Low level of educational attainment and low socioeconomic status are common risk factors, impact each other, serve as strong IPV influences, and function as barriers to seeking help.

Level of educational attainment may be directly related to socioeconomic status. As such, rates of abuse and poor health are high among women with low household income (Decker et al., 2014; Staggs & Riger, 2005). Women with lower income, who have experienced IPV, have worse health outcomes than those without a victimization history. Decker et al. (2014) found that substance use, poor sexual and reproductive health, and a poor health self-rating was associated with experiencing past year physical
aggression or sexual violence by an intimate partner. Kramer, Lorenzon, and Mueller (2004) found that women who had been victimized by an intimate partner reported significantly lower health status ratings than women who had not experienced IPV. Additionally, women who were chronically victimized experienced more health problems than women in any other experience group (Abramsky et al., 2011; Staggs & Riger, 2005). This suggests that perhaps abuse has a stronger negative effect on health than does poverty (Staggs & Riger, 2005). Since experiencing IPV can affect educational attainment and ultimately economic status, perhaps the IPV experience reported by the respondents contributed to the high number of women stating lower incomes and less education than the high school level. The data gathered for the current study provides an opportunity to further explore the possible connection between poverty, IPV, and health status in Southeastern Appalachian Ohio.

**Perceived Susceptibility in the Region**

The HBM was employed to investigate individual beliefs and attitudes from the perspective of a woman’s perceived susceptibility and perceived severity to IPV. Perceived susceptibility delves into an individual’s believed risk of contracting a disease or illness. Perceived severity involves an individual’s beliefs about the impact of the condition if contracted or left untreated. For example, consider a health condition like diabetes. A person may have certain risk factors that make it more likely he/she will develop the disease. However, his/her attitudes and behaviors can help to delay onset, prevent onset all together, or improve overall quality of life if the condition does develop. Violence prevention is not routinely investigated through the HBM lens, as it is not
commonly considered a disease or illness. In the case of this study, IPV was considered a health condition just like diabetes, substance use disorders, or cancer. IPV was considered to be a preventable condition that could be managed through help seeking if it were experienced, with specific practiced behaviors reducing negative health outcomes.

The final component of this analysis is perceived threat, which takes form when perceived susceptibility and perceived severity are both viewed as life impacting. In the case of the example of diabetes, a person having a family member with the disease who experienced a negative health outcome (such as blindness) may result in a perceived threat. For IPV, this belief can initiate the process to prevent, avoid, or stop IPV.

Significant findings were revealed for the perceived susceptibility construct for women who had experienced IPV, women living in urban Appalachian environments, and women 60 years old and beyond.

Women who had experienced IPV believed IPV to be a serious condition, felt there were benefits to seeking help, and felt susceptible to IPV when compared to women with no lifetime experience. Even with an identified threat to health and recognition of benefits to addressing IPV, only 36% of women who experienced IPV sought help. It is not possible to know exactly why this occurred, but one explanation could relate to community resources. As often presented, a lack of resources may not be the precise concern in these counties. Each county investigated has law enforcement, medical services, and even designated agencies for counseling. Although these services are not equal across counties, and services could do with expansion, there are options available. A different perspective is to examine if individuals know the resources exist, and if
individuals have the means to access the services. In more rural communities, no public transportation exists, and marketing efforts may be stifled due to limited opportunities. Additionally, many agencies serve multiple purposes, and being able to identify addressing IPV as one of those services may be difficult. Therefore, even if services are in place, without knowledge of them, or access to them, they will not be utilized.

Another possible theory supports the concern for anonymity, specifically in more rural or tight knit communities where general services are more limited. While practices are in place to protect anonymity and confidentiality, it is not uncommon to encounter a neighbor or friend seeking services in the multi-purpose agencies that can assist victims and survivors of IPV. In this instance, anonymity is challenging. It is also necessary to consider that help seeking behaviors may not have been identified as such due to relying on family, leaving a relationship, or the prideful rejection of the notion of getting “help.” These three examples were provided by respondents who decided to write on their surveys to explain their answer to the “If you experienced IPV, did you seek help?” item. The current study did not intend to investigate what type of help was sought. However, this is an important concept to further evaluate in future research.

When considering environment, urban-dwelling participants perceived themselves to be more susceptible to experiencing IPV than did women living in rural or suburban Appalachian settings. If perceived susceptibility is related to actual IPV experience, these results can be argued in support of the findings of the BJS (Staggs & Riger, 2005) National Crime Victimization Survey. This study stated that urban women were more likely to experience IPV. However, as results from the current study demonstrated, IPV
may be more persistent and severe in rural environments. Because rural environments are likely to have a minimal influx of changing influences compared to an urban environment, evolution of beliefs, attitudes, and behaviors may occur in a more gradual manner than in an urban setting. This slow progression ultimately allows for the perpetuation and practice of harmful behaviors. Using the data from the current study, additional analyses can be conducted to examine IPV lifetime experience rates by environment. Additionally, the specific type of violence rates could be assessed. This analysis would create a more whole picture of rates and types of violence experienced in different Appalachian Ohio settings. With rural research playing such a key role in Appalachian research, these analyses could shed light on the experience of the urban Appalachian woman and further add to the scholarship on IPV differences based on environment.

Last, significant differences were revealed for the 60+ age group between all other groups for the perceived susceptibility construct. The findings indicated that the 60+ age group perceived themselves to be less susceptible to experiencing IPV in the future than all other age groups. The 18 to 29 and 30 to 39 age groups had the highest rates of perceived susceptibility. This demonstrated susceptibility to IPV may change across the lifespan, specifically as a woman ages. This could be a factor of her relationship status changing from married to widowed, attributed to self-efficacy increasing with experience, a growing knowledge of how to avoid IPV, or increasing social support from children or grandchildren.
Severity of IPV Behaviors

It is difficult to separate the types of violence constituting IPV for specific discussion because there is often an overlap in occurrence. For instance, the psychological component that can accompany physical and sexual violence may be overshadowed by the immediate physical danger. Is the physical aspect of violence the most harmful, or is the compounding mental health effects the more concerning element? It is important to consider this question as the type of violence experienced may dictate the needs of the individual.

Prior research posits that women are more likely to seek help for physical violence than psychological aggression because the latter may be viewed as not as harmful to a person’s health (Abramsky et al., 2011; Campbell, 2002). With the literature pointing toward physical violence being culturally ingrained and accepted in Appalachia (Contos Shoaf, 2004; Gagne, 1992), it could be assumed that physical violence may not be viewed as a severe behavior leading to less help seeking. Learning how physical aggression, sexual aggression, psychological aggression, and stalking IPV behaviors were rated in terms of severity was an important element to include for discussion since perceived severity plays a major role in initiating behavior change.

More women (63%) reported experiencing expressive aggression (name calling, insults, etc.) than any other form of IPV, and yet physical violence and sexual violence were rated as the most harmful behaviors. It could be inferred that the consequences of expressive aggression occur over time, where physical and sexual violence produce an immediate, sometimes devastating outcome. In this case the more acute the effect, the
more harmful the behavior. Psychological aggression (expressive aggression and coercive control) is the most difficult component of IPV to define simply because it is dependent upon a person’s emotional response to and interpretation of a situation. Is yelling during an argument expressive aggression, or relational conflict? The answer is complicated. Other forms of violence are more easily illustrated because of the physical behaviors that define them. When Gagne (1992) conducted her seminal research in Appalachia, she identified coercive control tactics as being a common feature of a violent relationship in the region. In fact, some coercive techniques were carried out in a physically violent manner. Interestingly, for the current study, coercive control was rated nearly as harmful as sexual violence. The inclusion of behaviors that involved threat of harm to loved ones, or preventing a woman from seeing her family and friends were rated far higher than a woman being called names like “worthless,” “stupid,” or “crazy.” This illustrated a strong willingness to endure violence to protect others and maintain relationships. This finding mimics earlier research conducted in Appalachia (Gavin, 2008; Rezek, 2010).

In order to better address psychological aggression, it is necessary to properly identify the components of violence not only to protect the victim, but also to fairly evaluate a partner’s role in the situation. Currently there is no consensus on how to lucidly classify psychological aggression (Breiding et al., 2014). Since expressive aggression and coercive control can be defined by a culture (Black et al., 2011), additional research needs conducted to more clearly understand what behaviors are taking place within Appalachia.
Influencing Factors for Change

The last research question, “What cues to action would influence women living in 9 Appalachian Ohio counties to seek help if they had experienced IPV?” was addressed by ranking nine separate statements on the survey. Items were ranked in the following order:

1. a child being in the home where IPV is taking place;
2. family urging help be sought;
3. friends urging help be sought;
4. having a family history of violence;
5. personal doctor recommending IPV be addressed;
6. friends/family sharing information about IPV;
7. information about IPV found online;
8. attending a talk in the community about IPV;
9. getting IPV information from the radio, on TV, or in the newspaper.

These findings validated the aforementioned research (Few, 2005; Gagne, 1992; Gavin, 2008) suggesting the influence motherhood, family, and friends played in the health behavior of those living in Appalachia. Exploring how experiencing or witnessing IPV as a child can affect children into adulthood may be a crucial aspect of influencing change.

Having a doctor recommend that IPV be addressed proved to be meaningful for many women and ranked as the fifth most influential cue to action. This is a notable finding, as it has been suggested throughout the literature that, in the case of IPV, health
care providers are not as well utilized because of the potential for loss of anonymity or confidentiality. This is a justified concern, especially in smaller communities where staff and clients may have personal relationships, such as being family, friends, or neighbors. Existing protocols are effectively practiced to protect patient’s medical information for general health concerns. IPV, however, often has been described as a health concern that is not as easily assessed in confidence. Through her study of health care workers (HCW) serving pregnant and postpartum mothers in an Appalachian Ohio county, Denham (2003) reported that 40.7% of HCWs reported formal academic education preparing them to address IPV issues, but 83.5% reported needing more education to prepare them to work effectively with clients in IPV situations. Denham’s findings revealed a lack of comfort in examining patients for IPV. Additionally, only 56% of these HCWs stated employers had policies about violence assessment (Denham, 2003). Denham’s study confirmed there are opportunities for health care providers in Appalachia to improve procedures for building trust, and thus, better serve patients facing IPV. The findings from the cues to action item from the current study exhibited the significance doctors can play in stopping the IPV cycle. Beyond children, family, friends, and health professionals, the consideration of a woman’s family history of violence may be a powerful motivational change factor.

The family history of violence item was rated higher than expected, as the research strongly suggested that IPV within the family was seen as normal. This finding indicated that the current sample of women viewed IPV as unacceptable behavior, but other factors may influence a woman’s decision to address IPV, including input from family, friends,
and her doctor. Interestingly, for the current study, a doctor recommending IPV be addressed was rated higher than family and friends simply sharing information about IPV. It can be concluded that merely sharing knowledge on IPV is not enough to encourage the issue be resolved. It takes more direct, nonjudgmental involvement through advocating for change, and providing emotional, physical, and social support. These behaviors would be a sign of outright approval to handle the situation. The insistence that the issue be addressed from an authority figure, such as a doctor, sends a clear message, while information sharing by friends or family members leaves the advice open for interpretation. Alexander, Hearld, Mittler, and Harvey (2011) found that physicians set the tone for making the patient aware that they have some control over their health. The more active a physician is in encouraging patient autonomy, the more likely behavior change will occur.

A woman entering a medical facility will encounter numerous health professionals before ever seeing her doctor/physician. As such, it can be argued that the entire collection of health professionals plays a role in advocating for change. This may take place by establishing a culture by visibly displaying or providing materials about IPV to a prescreen for IPV being conducted during vitals check by a nurse or trained staff. This, in essence, can provide comfort for the client, and may provide enough support for change. While the Alexander et al. (2011) study was in reference to living with a chronic disease, there is justification for re-evaluating the role Appalachian doctors and health professionals can play in stopping the violence cycle.
Limitations

The three main limitations to this study should be appraised. The first limitation revolves around the sample. While physical data collection locations were offered in each county being investigated, the sample of women in this current study was considered one of convenience. A number of the participating public facilities were most often utilized by individuals who were unemployed or had a limited income. Additionally, the sample evaluated for this research study may have had a higher rate of IPV lifetime experience because some of the agencies serving as data collection locations directly offered services for individuals seeking support or assistance for IPV. These points reduced the overall generalizability of the findings, and may have led to a lower income, higher unemployed, higher IPV experienced sample. Research shows, however, that lower income and higher unemployment rates play a part in IPV incidence making this sample an important one to investigate. Moreover, since the demographic findings are consistent with census data for the region, the results may be more generalizable than these limitations suggest.

The second limitation is that the sample was not evenly distributed across all nine counties, which minimized the ability to analyze the data more closely by county. However, efforts were made to insure a more disparate sample of women took part in the survey. For instance, the mix of locations throughout the counties included health departments and a public library system. These locations had an assortment of services and a broader patron base. Additionally, the survey was offered online and advertised (online) in three newspapers that circulated in each county being investigated. The use of
online recruitment methods could be viewed as an issue on its own. However, numerous safeguards were employed to ensure only Appalachian women were included in the final sample analysis. These strategies contributed to diversification of the respondents, and opened the participant pool well beyond the physical data collection locations.

The last limitation is perhaps the most worthy of being scrutinized. IPV experience was examined as a matter of lifetime experience and included a psychological aggression item. Because of this type of questioning, it is not possible to know which women were currently experiencing IPV, frequency or severity of experiences, or perpetrator characteristics. The inclusion of the psychological aggression item may have inflated lifetime experience rates. If this item were excluded, over half of the sample still stated experiencing physical aggression. This is 15% above the national average for lifetime experience. This should be kept in mind when considering the rate of IPV experienced in the area. More scholarship is needed on the possible effects of psychological aggression, making the item’s inclusion admissible. Kramer et al. (2004) found that psychological aggression was as strongly associated with health problems as physical aggression. In fact, they found that 70–93% of women with headaches, stomach problems, substance abuse, chronic pain, depression, and suicidal thoughts had experienced lifetime physical/emotional abuse. Additional analyses of the data from the current study may shed new light on this topic. Ultimately, the study’s findings should inform current knowledge about attitudes toward IPV behaviors and occurrence, but can only be generalized to the sample of participants who completed the survey. However, with over 500 women participating, this quantitative study is one of the largest conducted
in this locale on the topic and the findings do hold some statistical validity due to this large number. The following section comprises a discussion of suggestions for future research.

**Future Research**

A number of future research ideas were presented in the previous sections; however, there are many additional opportunities for further evaluation using the current data. The first suggestion is related to sexual identity. Although not a large sample, there were 31 participants who identified as being lesbian/gay, bisexual, or asexual. These individuals could be compared against a weighted or similar sample of heterosexual women to determine if there is a difference in IPV perspective based on sexual orientation. Currently, within Appalachian and IPV research, there is minimal investigation of lesbian, gay, or bisexual individuals and their experience with IPV. The second issue for further research entails examining religious preference and relationship status. Religious preference may play a part in acceptance of traditional gender roles. More specifically the “fate” item included in the instrument may offer knowledge on the connection between religious beliefs and open an investigation of locus of control.

Third, to broaden generalizability, the current study could be conducted in the remaining 23 Appalachian counties not included in this project. This would allow for comparison by region to determine if any significant attitudinal differences exist within Appalachian Ohio. To add to this, it must be acknowledged that Appalachia is not simply a rural area. There is a need for further research on urban Appalachians, the experience of IPV, and how the concept of culture differs from rural Appalachians.
Fourth, the IPV “experience” items also highlighted areas of research necessity. Of this sample, 71% had experienced IPV in one form or another, which is higher than the 25–35% United States average (Black et al., 2011). Whereas this statistic cannot be generalized beyond these participants, the lifetime experience rate is elevated enough to justify supplementary investigation on IPV in this region. Only 36%, or a little more than a third of women who experienced IPV sought any type of assistance. It can be inferred that IPV experience alone cannot be used to predict a woman’s attitudes toward IPV, but it has been suggested that it may dictate the actions a woman takes to address the violence. Riddell et al. (2009) attempted to align the concept of rural culture and values with strategies used by women to deal with a violent relationship, which included attempts to stop, avoid, or escape IPV. An investigation such as this would be beneficial to learning more about why so few women sought help, and what resources or strategies were used by women who did help seek.

Next, for the IPV “experience” items, women were provided the option of “prefer not to answer” as a response. The “sexual violence” item had the highest number of women selecting this option. This may indicate that sexual violence is taking place more than expected, participants felt uneasy about discussing sex or sexual violence, and perhaps, it is seen as the most uncomfortable experience to discuss. Logan et al. (2005) added to the scarce body of knowledge on the barriers faced by rural survivors of sexual assault. Participants in this qualitative study reported feelings of shame, and a lack of sensitivity by others when their experiences were revealed. Rural women also stated the occurrence of substantial backlash by community and family members, adding to the
knowledge of the patriarchal nature of rural communities in which violence against women is ignored or rationalized (King & Roberts, 2011). This is an area that could benefit from more specific investigation.

Through the course of implementing the current research, community members provided unexpected input on future research possibilities. For this study, only the female perspective was being investigated. However, males within the community requested to take part in the research. Additionally, female participants requested to learn the male perspective on this topic. Abramsky et al. (2011) stated that “designing effective IPV prevention programs involves identification of risk factors-both those that are direct causes of IPV, and those that point to common characteristics of victims and/or perpetrators” (p. 1). Although this study revealed various risk factors existing in this region of Appalachia, there are many questions left unanswered, specifically with regards to perpetration. A future investigation of IPV attitudes in Appalachia should be inclusive of the male perspective both to understand more about their experience with IPV as the victim, but also their general attitudes about IPV.

Lastly, the examination of the predicting power of the HBM revealed that a woman’s perceived susceptibility, severity, and barriers accurately determined if a woman had experienced IPV. From this, a secondary analysis determined that if IPV were experienced, perceived barriers were correlated with help seeking. The HBM may serve useful in predicting IPV experience and serve as a resource for evaluating help-seeking. Additional studies need conducted using the HBM to explore IPV as both a preventable condition, and from a condition management perspective.
Implications and Applications

Data Collection

The data collection for the current project took place over seven weeks, resulting in a number of observations useful for possible application, and implications for future research in the area. Gaining support for the research was rather easy when in the physical data collection locations. The true challenge was getting permission to collect data in physical locations within each county. In some instances, the research proposal was rejected outright for fear that “outsiders” would be gathering data. Yet, in other instances, the “outsider” perspective was celebrated. Neither response is inappropriate, as both were visceral decisions made in the best interest of the community. However, the investigator and research assistants’ direct connection to the region proved to be an essential component to arranging the research. For respondents, participation in the study provided an opportunity to learn more about community IPV resources, to share their stories of surviving abuse, to speak up for family members who were in currently abusive situations, or to express their belief that IPV is a topic that needs further researched. At some physical locations, 100% of patrons completed the survey, and in others, researchers were praised for addressing the topic. Another real benefit of this study was that participation brought with it the possibility for survivors of IPV to help themselves or to benefit others in the region. The research, therefore, had a purpose beyond itself.

Instrument Design

Ranking items. With the rating of behaviors based on severity, there were a number of findings that may be useful for future research. In one specific county, 25% of
respondents did not rank items according to the directions. Rather than ranking from 1 to 5, some women simply marked all behaviors as a 1 (most harmful), or only marked 1 behavior out of the list of 5. There are a number of possible explanations for this occurrence. Respondents may not have been familiar with the process of ranking items, signifying a lack of understanding with the instructions. In this case, researchers may want to reconsider using ranking items. Another possibility is that women did not want to rank the behaviors because they were all seen as severe, or simply only selected the single behavior that was most severe in the group. No matter the case, a review of the items ranked incorrectly may play a key role in future instrument design.

**Terminology.** Although it is necessary to use appropriate terminology to be respectful of all experiences and relationship types, the terminology used can be a barrier to learning about IPV and working with individuals who have experienced various forms of relational violence. Terminology is an aspect of IPV research that needs careful consideration. IPV, for instance, is not, as of yet, the most common label used by the general public to refer to violence between intimate partners. However, the more commonly used terms such as abuse or domestic violence refer to a wide range of violence scenarios. Additionally, domestic violence brings with it laden preconceived notions about what the violence must look like, and who should be involved. The use of the term IPV can influence the results and reception of the study, as well. For this research, IPV was described as romantic partner violence, and defined in the introduction to the survey. It is unknown whether this change produced positive or negative results.
A researcher may want to consider simple terms such as violence or aggression. The following section provides considerations and recommendations for intervention.

**Considerations for Health Educators**

**Terminology When Educating About Intimate Partner Violence**

How the topic of IPV is presented may set the stage for how open individuals may be in discussing it, and how receptive they may be to absorbing the material. Throughout the course of this research terminology has been deliberately considered; and throughout this document it has been scrutinized from multiple perspectives. Three key points deserve supplemental elaboration. First, when educating about IPV to the general public, a strict focus on appropriate terminology could hinder open conversation between the health educator and the individuals to whom the knowledge is directed. If a health educator wants to use specific terms such as “IPV,” “psychological aggression,” or “perpetrator,” these need to be contextually defined. It should not be assumed that this language is common to the public.

Second, a methodical approach should be taken when discussing who experiences IPV, and who perpetrates the violence. It is common to assume relationships are heterosexual, and the male is the person inflicting the violence. However, research shows this is not the full picture of the issue. This course of education deems the information irrelevant to individuals who do not fit this predefined mold. Rather, an honest discussion should transpire to ensure an environment is created that is both considerate and accepting of different circumstances and relationship types.
Third, labeling a person as a “victim” or a “survivor” may be problematic. Caution should be taken when working directly with women who have experienced IPV. Some women who have experienced IPV may see themselves as neither a victim nor a survivor. They may also see themselves as both a victim and a survivor. Applying a designation onto a woman, rather than allowing her to define herself and determine what feels most comfortable to her, can affect the helping relationship. The terminology used plays a major role in potential success of health marketing strategies, as well.

**Health Marketing Strategies**

Health marketing strategies may prove fruitful when applying the findings from the “cues to action” item. As the results demonstrated, children being in the home and family and friends urging a woman to seek help would be paramount in aiding her with the decision of how to, or whether to, address IPV. These findings are beneficial when considering cultural values, health marketing campaigns, and potential educational programming. Personal interactions and encouragement proved to be more highly regarded than impersonal marketing attempts. Rather than targeting a woman by demonstrating the negative effects she may experience as a result of IPV, efforts could be directed toward how exposure to IPV as a child can affect his/her health, and future behavior. For instance, informational materials could be placed in packets that parents receive when a child goes for a medical check-up at a health department, medical center, or private physician’s office. A brief questionnaire about concerns in the home, including IPV, could also be a part of this check-up process. These efforts might allow a
parent to more clearly make the connection between a child’s exposure to IPV and the potential consequences.

Additionally, campaigns can be focused toward family members and friends, expressing the importance their actions play in the help seeking process. By placing the effects on children and the necessity for family support in the forefront, more women may be inclined to seek help. More family and friends may be persuaded to offer appropriate assistance. Consider the following. In researching the support networks of rural victims of IPV, Bosch and Bergen (2006) pointed to how social networks that were responsive to other life events were less reactive in incidents of IPV. Nonsupportive persons hindered access to resources and worked to keep women within their abusive relationships. For the woman experiencing IPV, this caused further discomfort and was perceived as disapproval. The concept of social cohesion in a small community where people help each other out in times of need could thus further alienate a victim of IPV. It also could confound an already bewildering situation when the community does not act upon the violence despite having knowledge of it (Wendt, 2009). Behaviors of supportive persons included helping find resources, such as extended informal and formal supportive networks (Bosch & Bergen, 2006) and were instrumental in the process. The use of bystander media campaigns in schools, health departments, and medical centers could be the missing link necessary to transition family, friends, and neighbors into a more active and educated support system. This type of outreach has been shown to be effective on college campuses even if a person did not go through an official bystander
training (Potter, 2012). There is merit to examining if this technique is also applicable in public health settings.

When creating health marketing campaigns, the terminology used is also important to consider, as language can be confusing as well as overwhelming. As discussed previously, the terms “intimate partner violence” and “psychological aggression” are common in the literature, but not as universally used in everyday encounters. A focus on the violent or aggressive behavior may prove to be more beneficial and efficient than attempting to educate on verbiage. Campaigns such as this have started to emerge around the world. For example, in Singapore (2008) the Aware Helpline produced print advertisements focusing on reminding women that domestic violence included expressive aggression and coercive control. A portion of the campaign included three advertisements. Each image included a man yelling at a woman with his hand thrusting forward from his mouth with the statement, “Verbal abuse can be just as horrific. But you don’t have to suffer in silence.” If developed according to needs and respectful of shared values, a marketing technique such as this might be a more straightforward method for targeting the women who are most likely to experience IPV in the region. A behavior-focused marketing approach is more direct, more relatable, and simply more easily understood. Besides implementing marking strategies, specific health education efforts for community members is also necessary to supply the knowledge and skills required to prevent IPV.
Health Education for Community Members

**Male-specific education.** In order to prevent IPV, it is necessary to change social norms. This involves engaging men and boys in understanding their role in both supporting and rejecting attitudes that contribute to the perpetration of IPV. The Ohio Domestic Violence Network, for example, created the Ohio Men’s Action Network (OHMAN). This grassroots effort is focused on promoting healthy relationships by actively including men and young men in violence prevention (ODVN, 2015). Endeavors such as OHMAN, for instance, provide a means for males to learn how to be an ally to those experiencing IPV, to be an advocate for victims and survivors of IPV, and to prepare males for when peer-to-peer education opportunities arise. Additional activities such as OHMAN should be a priority of IPV prevention education.

Another avenue for connecting with males is through bystander intervention education. This involves violence prevention efforts that are not exclusive to IPV. An example of a bystander educational program gaining national attention is The *Green Dot* movement. Edwards, originator of the concept, explains that the *Green Dot* strategy to violence prevention “capitalizes on the power of peer and cultural influence across all levels of the socioecological model” (Green Dot Etcetera, 2014, para. 1). The general premise is that violence is not acceptable, and everyone has a role in preventing it (Green Dot etc., 2014). Bystander education ventures such as *Green Dot* can play a major role in changing the norms of the Appalachian region. The school system may also be crucial in changing social norms.
School-based prevention education. Children who reside in a home where IPV is taking place may become victims themselves by being a direct target of the violence, by attempting to intervene to stop the abuse, or by being exposed to the situation (Hamby, Finkelhor, Turner & Ormrod, 2011; Kitzmann, Gaylord, Holt, & Kenny, 2003). Each of these instances may have damaging effects on a child’s development and future behavior as an adult. Risk factors exist that make it more likely a person will become a victim of IPV. There are also identified risks that increase the likelihood an individual will be a perpetrator of IPV. Substance abuse, poor educational attainment, unemployment (Campbell, 2002; Grisso et al., 1999; Kyriacou et al., 1999), and experiencing or witnessing IPV in the family of origin can increase perpetration risk (Campbell et al., 2007). These findings tend to be consistent regardless of demographics. Additionally, many studies have established that motivation to engage in preventive activities is influenced by the attitudes and behaviors of significant others (NCI, 2005; Sullivan et al., 2004). For adolescents these important figures may be parents, older siblings, or neighbors who are practicing high-risk behaviors such as substance use, conveying violence-supporting values, or perpetrating IPV. The presented findings, in combination with lower educational attainment and higher poverty rates consistent for youth growing up in Appalachia today, may play a part in IPV rates in the future.

School-based prevention education may be the defining factor in alerting adolescents to what healthy relationships involve, and provide the channel to develop skills necessary to keep themselves and others safe across the lifespan. Effective school-based prevention programs that strive to develop transferrable skills may prove to
be the most valuable. Nation et al. (2003) identified nine defining characteristics of effective prevention programs. First, programs should be comprehensive. This is sage advice, as youth today face a number of issues and schools have limited time allotted to address each one. Rather than focus specifically on IPV, school-based programs could include education on substance use, violence in general, bullying, and so forth. Next, teaching methods should be varied and engaging. Additionally, programs should provide sufficient dosage, be appropriately timed, and theory driven. Interventions should allow for positive relationship development between peers and include outcome evaluations. Most importantly for the Appalachian population, the material, activities, and overall program should be socioculturally relevant and planned and implemented by trained health educators. The findings of Nation et al. afford a health educator the knowledge necessary to develop useful interventions when working in the region to change attitudes toward IPV. Besides appropriately marketing strategies based on values of the women in the region, involving males in the IPV conversation, and incorporating prevention programs in school, health care professionals can enhance service access through implementing an IPV screening process.

Considerations for Health Care Professionals

Screening for Intimate Partner Violence

In some cases a health care professional may be the first individual a person experiencing IPV encounters, yet research indicates that the prevalence of screening for IPV is relatively low (Boinville, 2013). In 2011, the Institute of Medicine (IOM) released, *Clinical Preventive Services for Women: Closing the Gaps*, an extensive report
identifying eight key preventive services that would help ensure women’s health and well-being. One of the preventive services identified by the IOM was screening and counseling for “interpersonal and domestic violence” (p. 3, see also: American College of Obstetricians and Gynecologists, 2012; USDHHS, 2011). Additionally, the U.S. Preventive Services Task Force (USPSTF) released a recommendation in January 2013 calling for clinicians to “screen women of childbearing age for intimate partner violence” (p. 479). Rachael (2002) specifically suggested getting health care practitioners more involved in IPV screening and referral for low-income women, as abusive partners may restrict access to social services organizations but usually allow women to seek medical care for themselves and their children (Staggs & Riger, 2005). Kreuter, Chheda, and Bull (2000) found that patients who received physician-offered advice to quit smoking, eat less fat, or get more exercise prior to receiving intervention materials on the same topic were more likely to remember the materials, show them to others, and perceive the materials as applying to them specifically. These findings suggested that a physician’s advice can serve as a catalyst for change, and when supported by a coordinated system of information and activities that provide necessary detail for action, behavioral change can occur. This same notion can be directly applied by conducting IPV screenings, offering suggestions for addressing the issue, and incorporating intentional marketing materials for access by family, friends, victims, survivors, and perpetrators. With poverty rates being higher in Appalachian Ohio, and so many women in the current study reporting low household incomes, the application of the screening process is both necessary and important.
Health care professionals should consider, if they have not already, implementing an IPV screening protocol for women and men. A helpful source was developed by the CDC (*Intimate Partner Violence and Sexual Violence Victimization Assessment Instruments for Use in Healthcare Settings*; Basile, Hertz, & Back, 2007) to serve as a guide to aid in the selection of assessment instruments to identify victims requiring additional services. A number of screening tools are designed for health care settings, but the most appropriate screen for the region may still need to be developed (see also, Rabin, Jennings, Campbell, & Bair-Merritt, 2009). However, IPV identification can help practitioners make appropriate referrals for both victims and perpetrators. Additionally, it can be argued that follow up care to address secondary conditions of IPV is vital to improve quality of life. As the WHO (2012) explained, functional disorders or stress-related conditions could indirectly be caused by experiencing IPV and were more common than direct physical injuries. In many cases, without a doctor’s intervention or follow up counseling, a person’s quality of life can only be expected to marginally improve even if IPV ceases. Since IPV can lead to long-term, non-injurious physical health consequences (Coker et al., 2000) assessing for active IPV, and considering health-related complications of IPV, should be components of effective health assessments.

Last, insufficient educational preparation for IPV assessment is common among healthcare professionals across the nation, making continuing educational opportunities for Appalachian health care professionals necessary. The Academy of Violence and Abuse (AVA; Ambuel et al., 2011) compiled a listing of specific core competencies that
can help ensure health care professionals have a solid understanding of the IPV problem and acquire the skills and confidence needed to work with patients, colleagues, and agencies to make an impact on IPV. Denham (2003) suggested that cultural similarities and differences of those screening for IPV may have an effect on the assessment process. Therefore, as a supplement to the AVA competencies, the learning opportunities should include both a discussion of Appalachian-specific risk factors for IPV, and Appalachian-specific cultural sensitivity. Some of the aforementioned ideas are already being practiced in health care facilities throughout Appalachian Ohio. These agencies may serve as a valuable resource for other agencies needing to develop these protocols, serving as perfect opportunities to collaborate.

**Resource collaboration.** While IPV resources are not abundant or equal across communities, each of the nine Appalachian Ohio counties investigated in the current study had basic services in place to address IPV issues from the immediate need (i.e., emergency shelter) to transitional needs (i.e., counseling). Cross-county collaborative efforts between health care providers, IPV-specific resources, and local law enforcement could link these services in a more beneficial manner, however. Through collaboration, smaller communities could reap the benefits of shared resources, creating a more efficient network. Additionally, there would be more options for women who may need to travel to a resource outside the county in which they reside to better maintain anonymity and protect their personal safety. This collaborative practice is already in place, as multiple counties in this sample shared an emergency shelter, but an expansion of this effort could be advantageous. Collaboration in the long term could take shape through coalition
development. A specific violence prevention coalition may be established, or a subcommittee in an already existing coalition may further enhance the possible reach within the community.

Another suggestion is to have a compendium of surrounding community resources that can be shared throughout the agencies encountering and serving victims, survivors, and perpetrators of IPV. This information can be made available in the waiting areas, placed in a special section on agency websites, and be included in new staff training materials. However this innovative collaboration occurs, its “development must be inclusive so that the process becomes one in which professionals and the people they serve work together rather than in opposition” (Keefe, 2005, p. 16). The experiences of victims and survivors in Southeastern Appalachian Ohio are valid and can provide the needed knowledge to more effectively serve them.

**Conclusion**

No single study, or combination of studies, can distinctively define the cultural beliefs of the Appalachian region. However, it is through kinship, neighborliness, individualism, and pride that Appalachian culture is most readily identified (Crickard McCartney, in Maurer, 1980; Marcum, 2008). These values are frequently declared to be deep-seated and resistant to cultural change, which plays both a helpful and harmful part in the Appalachian IPV experience. It is not possible to correlate Appalachian culture with this response rate, but it is possible to discuss how these values can serve as powerful protective factors. Protective factors such as strong ties to family and the importance of safeguarding children can be used in prevention programs. Human capital
including resiliency developed from experiencing IPV, accessing services, knowledge gained across the lifespan or through continued education may also prove to be valuable.

Gaining support for research on sensitive subjects, such as in the case of IPV is difficult, and brings with it many complications and safety considerations. However, the number of women in this study who experienced IPV is a concerning finding, as was the poverty demonstrated by the reported household incomes. Whether or not these numbers are generalizable beyond the sample, the ratio of women who sought help for their experiences was still disproportionately low. There is power in and an obligation for health professionals to create a culture of conversation about IPV in this region. Without explicitly rejecting IPV as a tolerated behavior, and outwardly expressing support for IPV victims and survivors, it can be expected that lifetime prevalence will remain high and help seeking behaviors will continue to be low.

During the course of this research, three specific incidents occurred that support the previous statements. Upon turning in a completed survey, a woman stated, “I just realized I am in an abusive relationship.” While completing a survey, another woman asked if the behaviors listed in the ranking section of the instrument were only considered IPV if a man were perpetrating them. Following a discussion of how women can also be perpetrators in a relationship, she came to the realization that she had been abusing her husband. Lastly, a man quietly asked if he could participate in the research, as he had been abused by his partner and wanted to share his insight to help other men who were in the same situation.
A move toward a focus on the existing assets within Appalachian communities is necessary so that values that support IPV can be challenged. The findings from the current study demonstrated clear strengths within the belief systems of women in the Southeastern Appalachian Ohio region. These strengths need to be cultivated to highlight help-seeking behavior as the accepted reaction to IPV experience. As the landscape of Appalachian Ohio changes, so too do the people of the region. As generations of the past slowly fade away, the next generation establishes its own blended traditions, holding onto specific values and practices while letting go of others. The forthcoming challenge is to maintain a stronghold on the values that protect the people of the region while respectfully representing Appalachia from previous eras.
APPENDICES
APPENDIX A

APPALACHIA FIGURES

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Thank you for taking part in this survey. The information you provide will be very helpful to learning more about domestic violence in the county in which you live.

This survey is anonymous, and your provided answers cannot and will not be linked back to you.

Please circle your best response to the following statements about domestic violence.

Q1. Domestic violence is a problem in my community.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q2. Learning about domestic violence can help prevent it.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q3. I can benefit from learning about available resources to address domestic violence concerns.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q4. Seeking help for domestic violence can improve quality of life for those involved.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q5. I have a chance of being in an abusive relationship.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q6. I’d rather not think about domestic violence.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q7. I can prevent myself from experiencing domestic violence.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q8. It is fate that I will experience domestic violence.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q9. There is little chance that I would be in an abusive relationship.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q10. Experiencing domestic violence can affect my personal health.
    STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE
Q11. Experiencing domestic violence can affect my family.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q12. It is not possible to prevent myself from experiencing domestic violence.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q13. Experiencing domestic violence can affect my social life.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q14. Experiencing domestic violence does not affect a person’s life.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q15. Consequences of domestic violence are expensive to treat.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q16. There is no benefit to learning about domestic violence resources.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q17. I would be afraid to tell someone I have experienced domestic violence.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q18. Dealing with domestic violence is painful.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q19. Addressing domestic violence will be an inconvenience in my life.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q20. Addressing domestic violence issues is inexpensive.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q21. Discussing domestic violence is embarrassing.
   STRONGLY DISAGREE    DISAGREE    AGREE    STRONGLY AGREE

Q22. At some point in my life, I have experienced sexual abuse by an intimate partner.
   YES     NO     I DO NOT KNOW     PREFER NOT TO ANSWER

Q23. At some point in my life, I have experienced stalking (being followed, excessive messaging, etc.) by an intimate partner.
   YES     NO     I DO NOT KNOW     PREFER NOT TO ANSWER
Q24. At some point in my life, I have experienced physical abuse (hitting, kicking, etc.) by an intimate partner.

YES  NO  I DO NOT KNOW  PREFER NOT TO ANSWER

Q25. At some point in my life, I have experienced psychological abuse (name-calling, controlling who I can see, threatening me, etc.) by an intimate partner.

YES  NO  I DO NOT KNOW  PREFER NOT TO ANSWER

Q26. If I had experienced domestic violence, the following factors would encourage me to seek help:

1. Attending a public health talk about domestic violence
2. Getting information about domestic violence from the radio, television, newspaper
3. Friends sharing information about domestic violence with me
4. A child being in my home where domestic violence is taking place
5. Doctor recommending an abusive issue be addressed
6. Friends urging me to seek help
7. Family urging me to seek help
8. A family history of violence

Rank your top three (3) choices by putting a 1, 2, and 3 on the line next to your selected answers. 1 would be the top choice.

Q27. Kissing in a sexual way when the kiss is not wanted.

NOT AT ALL  SLIGHTLY  MODERATELY  VERY
HARMFUL    HARMFUL    HARMFUL    HARMFUL

Q28. Receiving anal sex when it is not wanted.

NOT AT ALL  SLIGHTLY  MODERATELY  VERY
HARMFUL    HARMFUL    HARMFUL    HARMFUL

Q29. Receiving vaginal sex when it is not wanted.

NOT AT ALL  SLIGHTLY  MODERATELY  VERY
HARMFUL    HARMFUL    HARMFUL    HARMFUL

Q30. Performing oral sex on a romantic partner when it is not wanted by the giver.

NOT AT ALL  SLIGHTLY  MODERATELY  VERY
HARMFUL    HARMFUL    HARMFUL    HARMFUL
Q31. **Performing oral sex on a romantic partner when it is not wanted by the receiver.**

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Q32. **Making untrue promises about the future to get a romantic partner to have sex.**

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Q33. **Threatening to end a relationship to get a romantic partner to have sex.**

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Q34. **Watching or following a romantic partner from a distance.**

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Q35. **Showing up in a place (home, workplace) when the visit was not wanted.**

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Q36. **Leaving unwanted, romantic messages.**

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Q37. **Sending cards, gifts, or flowers when they were not wanted.**

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Q38. **Calling a romantic partner a loser, failure, or not good enough.**

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Q39. **Calling a romantic partner names like ugly, fat, crazy, or stupid.**

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Q40. **Insulting or trying to humiliate a romantic partner in front of others.**

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Q41. **Telling a romantic partner “no one else would want you.”**
   - NOT AT ALL: SLIGHTLY, MODERATELY, VERY
   - HARMFUL: HARMFUL, HARMFUL, HARMFUL

Q42. **Preventing a romantic partner from seeing or talking to family or friends.**
   - NOT AT ALL: SLIGHTLY, MODERATELY, VERY
   - HARMFUL: HARMFUL, HARMFUL, HARMFUL

Q43. **Making decisions for a person such as what to eat, wear, or friends to have.**
   - NOT AT ALL: SLIGHTLY, MODERATELY, VERY
   - HARMFUL: HARMFUL, HARMFUL, HARMFUL

Q44. **Making threats to physically harm a person.**
   - NOT AT ALL: SLIGHTLY, MODERATELY, VERY
   - HARMFUL: HARMFUL, HARMFUL, HARMFUL

Q45. **Threatening to hurt someone you love.**
   - NOT AT ALL: SLIGHTLY, MODERATELY, VERY
   - HARMFUL: HARMFUL, HARMFUL, HARMFUL

Q46. **Destroying something that was important to a romantic partner.**
   - NOT AT ALL: SLIGHTLY, MODERATELY, VERY
   - HARMFUL: HARMFUL, HARMFUL, HARMFUL

Q47. **Controlling a romantic partner’s money.**
   - NOT AT ALL: SLIGHTLY, MODERATELY, VERY
   - HARMFUL: HARMFUL, HARMFUL, HARMFUL

Q48. **Preventing a romantic partner from leaving the home.**
   - NOT AT ALL: SLIGHTLY, MODERATELY, VERY
   - HARMFUL: HARMFUL, HARMFUL, HARMFUL

Q49. **Using a knife or gun to threaten a romantic partner.**
   - NOT AT ALL: SLIGHTLY, MODERATELY, VERY
   - HARMFUL: HARMFUL, HARMFUL, HARMFUL

Q50. **Slapping a romantic partner.**
   - NOT AT ALL: SLIGHTLY, MODERATELY, VERY
   - HARMFUL: HARMFUL, HARMFUL, HARMFUL

Q51. **Pushing a romantic partner.**
   - NOT AT ALL: SLIGHTLY, MODERATELY, VERY
   - HARMFUL: HARMFUL, HARMFUL, HARMFUL
Q52. **Purposefully burning a romantic partner.**  
| NOT AT ALL | SLIGHTLY | MODERATELY | VERY HARMFUL  |
| HARMFUL   | HARMFUL  | HARMFUL    | HARMFUL       |

Q53. **Choking a romantic partner.**  
| NOT AT ALL | SLIGHTLY | MODERATELY | VERY HARMFUL  |
| HARMFUL   | HARMFUL  | HARMFUL    | HARMFUL       |

Q54. **Throwing objects at a romantic partner.**  
| NOT AT ALL | SLIGHTLY | MODERATELY | VERY HARMFUL  |
| HARMFUL   | HARMFUL  | HARMFUL    | HARMFUL       |

Q55. **Pulling hair of a romantic partner.**  
| NOT AT ALL | SLIGHTLY | MODERATELY | VERY HARMFUL  |
| HARMFUL   | HARMFUL  | HARMFUL    | HARMFUL       |

D1. **What is your present age in years?**  

D2. **In what city do you live?**  

D3. **In what county do you live?**  

**For each of the following questions, circle the number of the answer that best represents you. Please provide only one response to each question.**

D4. **Which of the following best describes the area in which you live?**  
1. URBAN  
2. RURAL  
3. SUBURBAN  

D5. **Which of the following best describes your education?**  
1. NO FORMAL EDUCATION  
2. SOME GRADE SCHOOL  
3. COMPLETED GRADE SCHOOL  
4. SOME HIGH SCHOOL  
5. COMPLETED HIGH SCHOOL OR GED  
6. SOME COLLEGE, TRADE OR TECHNICAL SCHOOL  
7. COMPLETED COLLEGE  
8. COMPLETED TRADE OR TECHNICAL SCHOOL  
9. SOME GRADUATE WORK  
10. GRADUATE DEGREE (Specify degree)  


D6. **Which of the following best describes your current relationship status?**
1. MARRIED OR DOMESTIC PARTNERSHIP
2. DIVORCED
3. SEPARATED
4. WIDOWED
5. CURRENTLY DATING, BUT NEVER MARRIED
6. CURRENTLY DATING, AND PREVIOUSLY MARRIED
7. NOT CURRENTLY DATING, AND NEVER MARRIED
8. NOT CURRENTLY DATING, BUT PREVIOUSLY MARRIED

D7. **What is your religious preference?**
1. CHRISTIAN
2. PROTESTANT
3. JEWISH
4. MORMON
5. NONE
6. PREFER NOT TO ANSWER
7. OTHER (Please specify) _________________________

D8. **Which of the following categories best describes your primary area of employment?**
1. UNEMPLOYED
2. SELF-EMPLOYED (Please specify) ________________
3. RETIRED
4. HOMEMAKER
5. EDUCATION
6. HEALTH CARE
7. AGRICULTURE
8. ARTS, ENTERTAINMENT, RECREATION
9. HOTEL AND FOOD SERVICE
10. FACTORY
11. MILITARY
12. STUDENT
13. OTHER (Please specify) _________________________
D9. **What is your current annual household income?**
   1. LESS THAN $10,000
   2. $10,000-$14,999
   3. $15,000-$19,999
   4. $20,000-$24,999
   5. $25,000-$34,999
   6. $35,000-$49,999
   7. $50,000-$74,999
   8. MORE THAN $75,000
   9. PREFER NOT TO ANSWER

D10. **What is your sexual orientation?**
   1. HETEROSEXUAL
   2. GAY
   3. LESBIAN
   4. OTHER (please specify)______________
Table B1

Pilot Study Instrument Key

<table>
<thead>
<tr>
<th>Variable</th>
<th>Item #</th>
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<td>Q14 for Q10</td>
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<tr>
<td>Perceive Benefits</td>
<td>Q2-Q4</td>
<td>Q16 for Q3</td>
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<td>Perceived Susceptibility</td>
<td>Q5, Q8</td>
<td>Q9 for Q5</td>
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<tr>
<td>Perceived Barriers</td>
<td>Q6, Q15, Q17-19, Q21</td>
<td>Q20 for Q15</td>
</tr>
<tr>
<td>Self-Efficacy</td>
<td>Q7</td>
<td>Q12 for Q7</td>
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<tr>
<td>Cues to Action</td>
<td>Q26</td>
<td>NO REVERSE</td>
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<th>IPV Experience</th>
<th>Severity of Specific Behaviors</th>
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<tr>
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<td>Q22 Sexual Violence Q27-33</td>
</tr>
<tr>
<td>Stalking</td>
<td>Q23 Stalking Q34-37</td>
</tr>
<tr>
<td>Physical Violence</td>
<td>Q24 Expressive Aggression Q38-41</td>
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<tr>
<td>Psychological Aggression</td>
<td>Q25 Coercive Control Q42-49</td>
</tr>
<tr>
<td></td>
<td>Physical Violence Q50-55</td>
</tr>
</tbody>
</table>

Demographics

| Age                           | D1               |
| City of Residence             | D2               |
| County of Residence           | D3               |
| Urban, Rural, or Suburban     | D4               |
| Education                     | D5               |
| Relationship Status           | D6               |
| Religious Preference          | D7               |
| Area of Employment            | D8               |
| Annual Household Income       | D9               |
| Sexual Orientation            | D10              |

*Note.* Expressive aggression + Coercive control = Psychological aggression
Sexual violence + stalking + psychological aggression + physical violence = IPV
APPENDIX C

LARGE-STUDY DOCUMENTS
Appendix C

Large-Study Documents

Informational Document (Adapted Consent Form)

Study Title: Domestic Violence Perceptions in Nine Appalachian Ohio Counties

Principal Investigator: Amanda Burke & Dr. Dianne Kerr (Faculty Advisor)

You are being invited to participate in a research study. This form will provide you with information on the research project, what you will need to do, and the associated risks and benefits of the research. Your participation is voluntary and responses are anonymous. Please read this form carefully, so you can make an informed decision on participation.

Purpose:
The purpose of this study is to gain knowledge about the opinion of domestic violence in your community.

Procedures:
Participants will be asked to complete an anonymous survey that should take about 20 minutes to finish.

Benefits:
This research may not directly or immediately benefit you. However, your participation in this study will help local public health agencies better serve the needs of your community.

Risks and Discomforts:
There are no risks or discomforts anticipated from participating in this study. However, the questions asked are sensitive in nature including topics on sexual, physical, and psychological abuse. If you should feel any discomfort, let the survey team know. You may also request to see the survey prior to agreeing to participate.

Privacy and Confidentiality:
No identifying information will be collected. Responses will not and cannot be linked to you. All survey responses will be kept anonymous. PLEASE NOTE: If risk of harm to self or others is revealed to the research team, we are required to notify agency staff.
Compensation:
There is no compensation for your participation in this research study.

Voluntary Participation:
Taking part in this research study is entirely up to you. You may choose not to participate or you may discontinue your participation at any time without penalty or loss of benefits to which you are otherwise entitled. You will be informed of any new, relevant information that may affect your health, welfare, or willingness to continue your study participation.

Contact Information:
If you have any questions or concerns about this research, contact Amanda Burke at email ajburke@kent.edu or Dr. Dianne Kerr at (330)-672-0677 or email dkerr@kent.edu. This project has been approved by the Kent State University Institutional Review Board. If you have any questions about your rights as a research participant or complaints about the research, you may call the IRB at (330)-672-2704.
Your Opinion Makes a Difference

Take Part in This Study...

*A Community Perspective on Intimate Partner Violence in Southeastern Appalachian Ohio

Participant Eligibility
- Be female and at least 18 years old
- Live in Guernsey, Muskingum, Belmont, Noble, Coshocton, Morgan, Harrison, or Monroe County

Instructions:
- Click this link to complete the anonymous survey!
- Takes about 15 minutes to make a difference.
- Survey is open until December 11, 2014
- Questions about the study? Email ajburke@kent.edu

*This study has been IRB approved

If you need help with intimate partner violence, contact the National Domestic Violence Hotline at 1-800-799-SAFE
Table Information Card

FRONT

STUDY PURPOSE
The purpose of this study is to gain knowledge about the opinions of intimate partner violence in your community.

ELIGIBILITY
- Must be a woman
- Be at least 18-years-old
- Live in Guernsey, Muskingum, Belmont, Noble, Coshocton, Morgan, Harrison, or Monroe County

PRIVACY & CONFIDENTIALITY
No identifying information will be collected. All survey responses will be kept anonymous.

COMPENSATION
There is no compensation for your participation in this research study.

INSTRUCTIONS
- Go to www.facebook.com/SEOviolencestudy
- Click the “Romantic Partner Violence Study” link
- Complete the anonymous survey!
- Survey is open until December 11, 2014

BACK

VOLUNTARY PARTICIPATION
Taking part in this research study is entirely up to you. You may choose not to participate, or you may discontinue your participation at any time.

RISKS & DISCOMFORTS
There are no risks or discomforts anticipated from participating in this study. However, the questions asked are sensitive in nature including topics on sexual, physical, and psychological aggression.

BENEFITS
This research may not directly or immediately benefit you. However, your participation in this study will help local public health agencies better serve the needs of your community.

Thank you for your consideration and possible participation in this study.

CONTACT INFORMATION

If you need help with intimate partner violence, contact the National Domestic Violence Hotline at 1-800-799-SAFE

If you have any questions about this research, contact Amanda Burke at ajburke@kent.edu.

This project has been approved by the Kent State University Institutional Review Board.

If you have any questions about your rights as a research participant or complaints about the research, you may call the IRB at (330)-672-2704.
Romantic Partner Violence Survey

Thank you for taking part in this survey. The information you provide will be very helpful to learning more about opinions related to violence between romantic/intimate partners in your community. Romantic partner violence is conflict that happens between current/former dating & married couples.

This survey is **anonymous**, and your provided answers cannot and will not be linked back to you.

**GROUPS 1–8 INSTRUCTIONS:** For each group of statements below, place a "1" next to the statement that you believe is most harmful, a "2" next to the statement that you believe is next most harmful, and so on, up to "5" being least harmful.

**No two statements in one group can have the same ranking, and all statements need ranked.**

**EXAMPLE: Group A**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Statement</th>
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<tbody>
<tr>
<td>3</td>
<td>Slapping a romantic partner</td>
</tr>
<tr>
<td>5</td>
<td>Hitting a romantic partner</td>
</tr>
<tr>
<td>4</td>
<td>Kicking a romantic partner</td>
</tr>
<tr>
<td>1</td>
<td>Pushing a romantic partner</td>
</tr>
<tr>
<td>2</td>
<td>Shoving a romantic partner</td>
</tr>
</tbody>
</table>

**Group 1**

_____ Calling a romantic partner a loser, failure, or not good enough.
_____ Watching or following a romantic partner from a distance without their knowledge.
_____ Kissing in a sexual way when the kiss is not wanted.
_____ Preventing a romantic partner from seeing or talking to family or friends.
_____ Slapping a romantic partner.

**Group 2**

_____ Pushing or shoving a romantic partner.
_____ Showing up in a place (home, workplace, school) when the visit is not wanted.
_____ Being forced to have anal sex when it is not wanted.
_____ Making decisions for a person such as what to eat, wear, or friends to have.
_____ Calling a romantic partner names like ugly and/or fat.
Group 3
_____ A romantic partner leaving unwanted messages (including texts or voicemails).
_____ Insulting or trying to humiliate a romantic partner in front of others.
_____ Being forced to have vaginal sex when it is not wanted.
_____ Purposefully burning a romantic partner.
_____ Making threats to physically harm a person other than the romantic partner.

Group 4
_____ Threatening to hurt someone you love.
_____ Sending cards, gifts, or flowers when the romantic partner did not want them.
_____ Telling a romantic partner “no one else would want you.”
_____ Being forced to perform oral sex on a romantic partner.
_____ Purposefully trying to choke a romantic partner.

Group 5
_____ Being forced to receive unwanted oral sex from a romantic partner.
_____ Spying on a romantic partner with a listening device, camera, or GPS.
_____ Destroying something that was important to a romantic partner.
_____ Throwing objects at a romantic partner to hurt him/her.
_____ Calling a romantic partner names like stupid and/or crazy.

Group 6
_____ Making untrue promises about the future to get a romantic partner to have sex.
_____ Purposefully hurting a romantic partner by pulling his/her hair.
_____ Acting very angry towards a romantic partner in a way that seems dangerous.
_____ Controlling a romantic partner’s money.
_____ Leaving strange or potentially threatening items for a romantic partner to find.

Group 7
_____ Kicking a romantic partner to hurt him/her.
_____ Preventing a romantic partner from leaving the home.
_____ Threatening to end a relationship to get a romantic partner to have sex.
_____ Making unwanted phone calls to a romantic partner (including hang-ups).
_____ Making fun of a romantic partner in front of others.

Group 8
_____ Convincing a romantic partner to have sex by repeatedly asking for sex.
_____ Sneaking into a romantic partner’s home/car to leave things to scare them.
_____ Yelling at a romantic partner in a way that seems dangerous.
_____ Using a knife or gun to threaten a romantic partner.
_____ Purposefully using a knife or gun on a romantic partner to hurt him/her.
Circle your best response to the below statements about romantic partner violence.

Q1. Violence between romantic partners is a problem in my community.
   Strongly Disagree  Disagree  Agree  Strongly Agree

Q2. Learning about romantic partner violence can help prevent it.
   Strongly Disagree  Disagree  Agree  Strongly Agree

Q3. I can benefit from learning about romantic partner violence resources available to me.
   Strongly Disagree  Disagree  Agree  Strongly Agree

Q4. Seeking help for romantic partner violence can improve the lives of those involved.
   Strongly Disagree  Disagree  Agree  Strongly Agree

Q5. I have a chance of experiencing romantic partner violence.
   Strongly Disagree  Disagree  Agree  Strongly Agree

Q6. I would rather not think about romantic partner violence.
   Strongly Disagree  Disagree  Agree  Strongly Agree

Q7. I can avoid experiencing romantic partner violence.
   Strongly Disagree  Disagree  Agree  Strongly Agree

Q8. It is fate that I will experience violence by my romantic partner.
   Strongly Disagree  Disagree  Agree  Strongly Agree

Q9. Experiencing romantic partner violence would affect my family.
   Strongly Disagree  Disagree  Agree  Strongly Agree

Q10. Experiencing romantic partner violence would affect my personal health.
    Strongly Disagree  Disagree  Agree  Strongly Agree

Q11. There is no chance I would experience romantic partner violence.
     Strongly Disagree  Disagree  Agree  Strongly Agree

Q12. There is no benefit to learning about romantic violence resources in my community.
     Strongly Disagree  Disagree  Agree  Strongly Agree
Q13. **Experiencing romantic partner violence would affect my social life.**
   Strongly Disagree    Disagree    Agree    Strongly Agree

Q14. **A person’s health would not be affected by experiencing romantic partner violence.**
   Strongly Disagree    Disagree    Agree    Strongly Agree

Q15. **Consequences of romantic partner violence are expensive to treat.**
   Strongly Disagree    Disagree    Agree    Strongly Agree

Q16. **It is not possible to avoid experiencing romantic partner violence.**
   Strongly Disagree    Disagree    Agree    Strongly Agree

Q17. **If I experienced romantic partner violence, I would avoid talking about it because no one would believe me.**
   Strongly Disagree    Disagree    Agree    Strongly Agree

Q18. **If I were experiencing romantic partner violence, I am confident I could resolve the situation.**
   Strongly Disagree    Disagree    Agree    Strongly Agree

Q19. **Discussing romantic partner violence is embarrassing.**
   Strongly Disagree    Disagree    Agree    Strongly Agree

Q20. **Addressing romantic partner violence issues is inexpensive.**
   Strongly Disagree    Disagree    Agree    Strongly Agree

Q21. **I would be afraid to leave a romantic relationship where violence was taking place.**
   Strongly Disagree    Disagree    Agree    Strongly Agree

Q22. **I worry a lot about experiencing romantic partner violence.**
   Strongly Disagree    Disagree    Agree    Strongly Agree

Q23. **I am likely to be violent toward my romantic partner.**
   Strongly Disagree    Disagree    Agree    Strongly Agree

Q24. **How would you rate your overall health?**
   Excellent    Good    Fair    Poor    Very Poor
Q25. At some point in my life, I have experienced sexual aggression by a romantic partner (being forced to have sex, being touched when it was not wanted, etc.).

Yes  No  I Do Not Know  Prefer Not to Answer

Q26. At some point in my life, I have experienced stalking by a romantic partner (being followed, excessive messaging, etc.).

Yes  No  I Do Not Know  Prefer Not to Answer

Q27. At some point in my life, I have experienced physical aggression by a romantic partner (hitting, kicking, pushing, etc.).

Yes  No  I Do Not Know  Prefer Not to Answer

Q28. At some point in my life, I have experienced name-calling, insulting, yelling, or cursing by a romantic partner that felt dangerous to me.

Yes  No  I Do Not Know  Prefer Not to Answer

Q29. At some point in my life, I have experienced a romantic partner controlling my behavior or relationship with friends and family in a way that felt dangerous to me.

Yes  No  I Do Not Know  Prefer Not to Answer

Q30. I sought help if I experienced romantic partner violence.

Yes  No  I Do Not Know  I have not experienced romantic partner violence

For Question 31 (below), rank the options from 1 to 9.

1 would be the most important reason for you to seek help, 2 the next most important, and so on up to 9 which would be the least important to you.

No two options should have the same number, and all options should be ranked.

Q31. If I experienced romantic partner violence, the following factors would encourage me to seek help:

Friends urging me to seek help
Information about romantic partner violence found online
Attending a talk in my community about romantic partner violence
Having a personal family history of violence
A child being in my home where romantic partner violence was taking place
My doctor recommending the romantic partner violence be addressed
Getting romantic partner violence information from the radio, television, newspaper
Family urging me to seek help
Friends/family sharing information about romantic partner violence with me
D1. How old are you (in years)? ________________________________

D2. In what city do you live? ________________________________

D3. In what county do you live? ________________________________

For each of the questions below, circle the number of the answer that best represents you. Please provide only one response to each question.

D4. Which of the following best describes the area in which you live?

D5. Do you consider yourself to be Appalachian?
   1. Yes    2. No    3. I Do Not Know

D6. What is your sexual orientation?

D7. Which of the following best describes your highest level of education achieved?
   1. No Formal Education
   2. Some Grade School
   3. Completed Grade School
   4. Some High School
   5. Completed High School or GED
   6. Some College, Trade, or Technical School
   7. Completed College
   8. Completed Trade or Technical School
   9. Some Graduate Work
   10. Graduate Degree (Specify degree) ______________________

D8. Which of the following categories best describes your employment status?
   1. Employed
   2. Unemployed
   3. Other (Please specify) ____________________________
D9. **Which of the following best describes your current relationship status?**
   1. Married or Domestic Partnership
   2. Divorced
   3. Separated
   4. Widowed
   5. Not Married, but Living with a Romantic Partner
   6. Single, but Currently Dating
   7. Single, but Not Currently Dating
   8. Single, No Past Relationship History

D10. **What is your current annual household income?**
   1. Less Than $10,000
   2. $10,000-$14,999
   3. $15,000-$19,999
   4. $20,000-$24,999
   5. $25,000-$34,999
   6. $35,000-$49,999
   7. $50,000-$74,999
   8. More Than $75,000
   9. Prefer Not to Answer

D11. **What is your religion?**
   1. Christian
   2. Protestant
   3. Catholic
   4. Jewish
   5. Mormon
   6. None
   7. Other (Please specify) _______
   8. Prefer Not to Answer

Please place your completed survey in the provided envelope, seal the envelope, and return it to the table. Thank you again for your time and opinions.
Table C1

Large Study Instrument Key

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<th>HBM Constructs</th>
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<td>Perceive Benefits</td>
<td>Q2-Q4</td>
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<td>Perceived Barriers</td>
<td>Q6, Q15, Q17, 19, Q21</td>
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<td>Q7, Q18</td>
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<td>Cues to Action</td>
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<td>Coercive Control</td>
<td>Q28 Female Violence Participation</td>
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<td>D2 Area of Employment</td>
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<td>County of Residence</td>
<td>D3 Annual Household Income</td>
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<td>Type of Neighborhood</td>
<td>D4 Religious Preference</td>
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<td>Appalachian Self-Identity</td>
<td>D5 Sexual Orientation</td>
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<td>Education</td>
<td>D6</td>
</tr>
</tbody>
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Note. Expressive aggression + Coercive control=Psychological aggression
Sexual violence + stalking+ psychological aggression + physical violence=IPV
REFERENCES


country study on women’s health and domestic violence: An observational study.  
*The Lancet, 371* (9619), 1165-1172.


http://www.hiddenhurt.co.uk/domestic_violence_survivor.html

http://www.endabuse.org/resources/facts/


Puente, M. (1992, July 21). Legislators tackling the terror of stalking: But some experts say measures are vague. *USA Today*, p. 9A.


